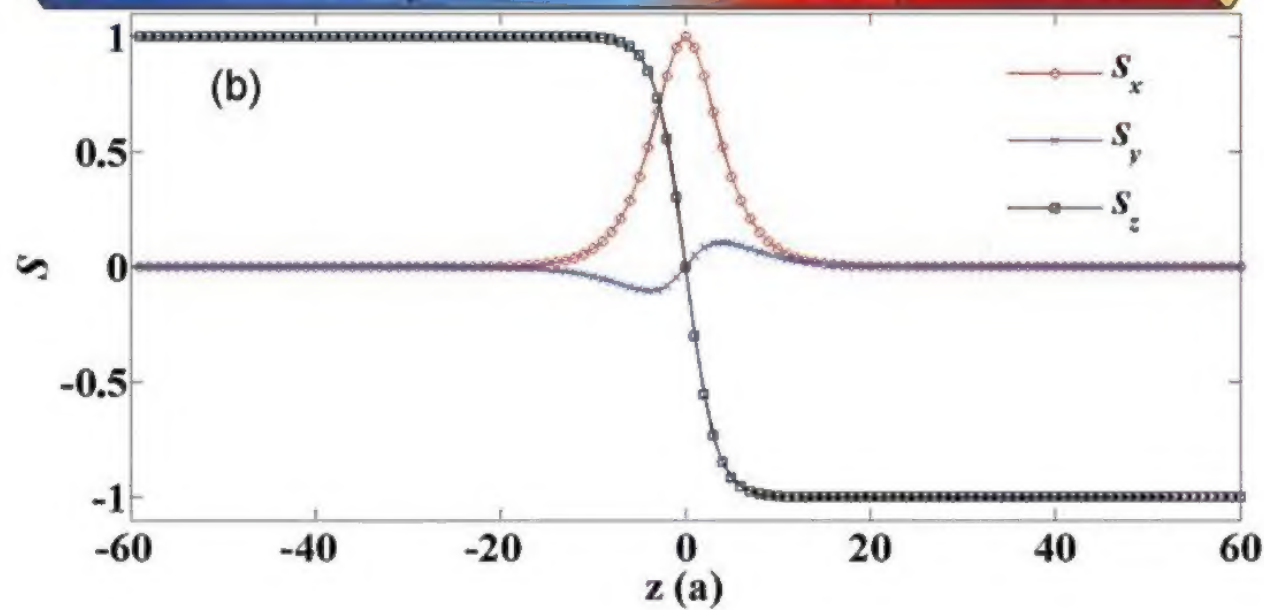
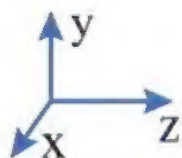
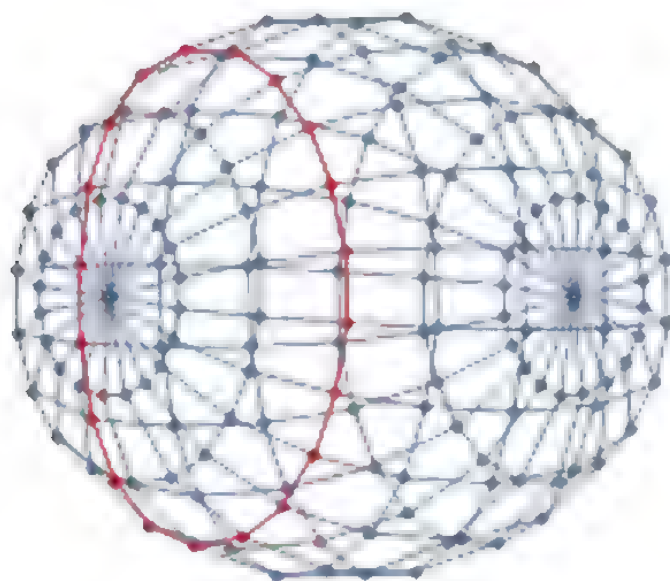
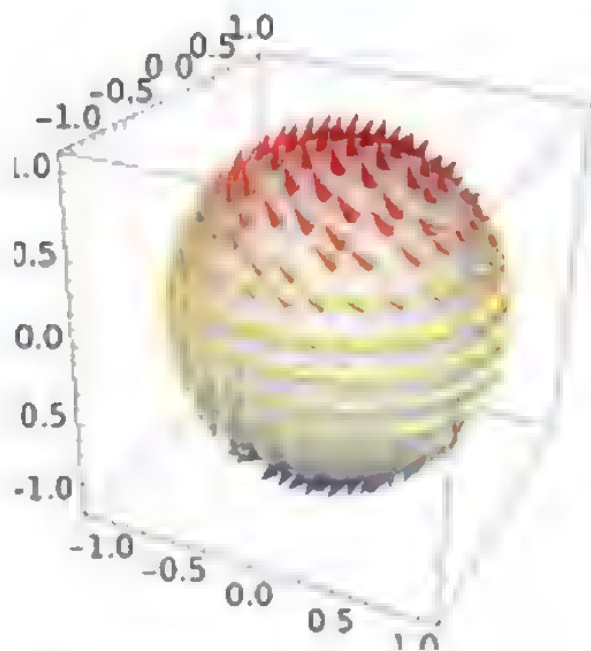
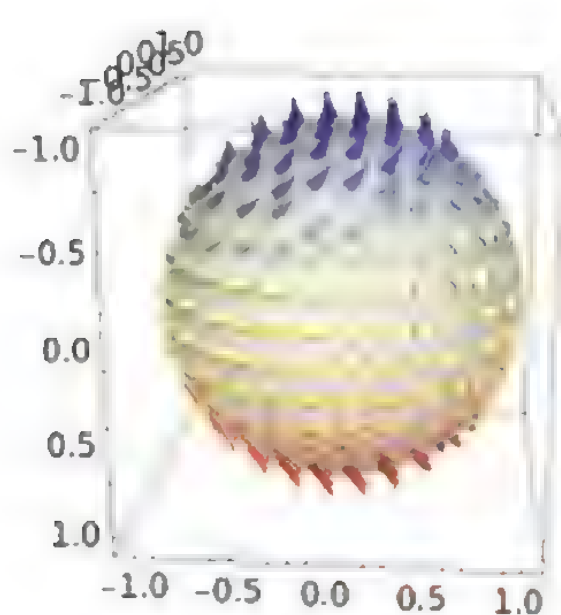
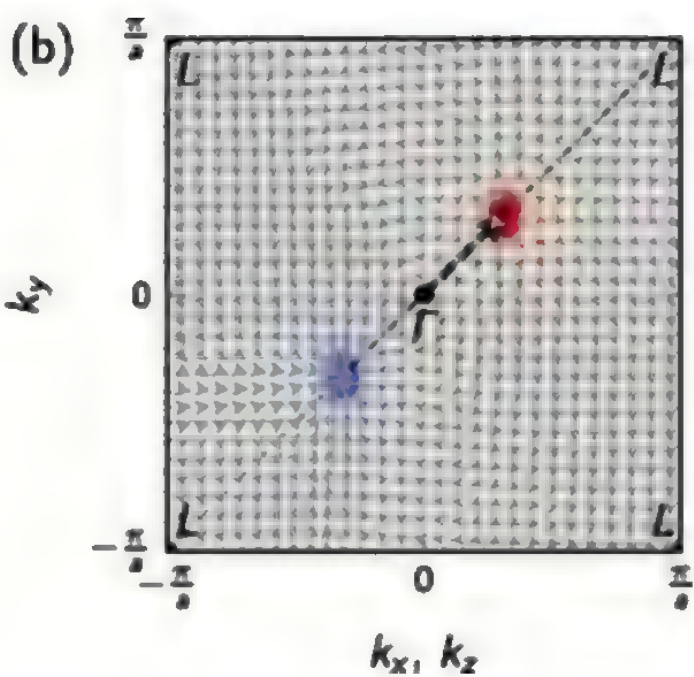
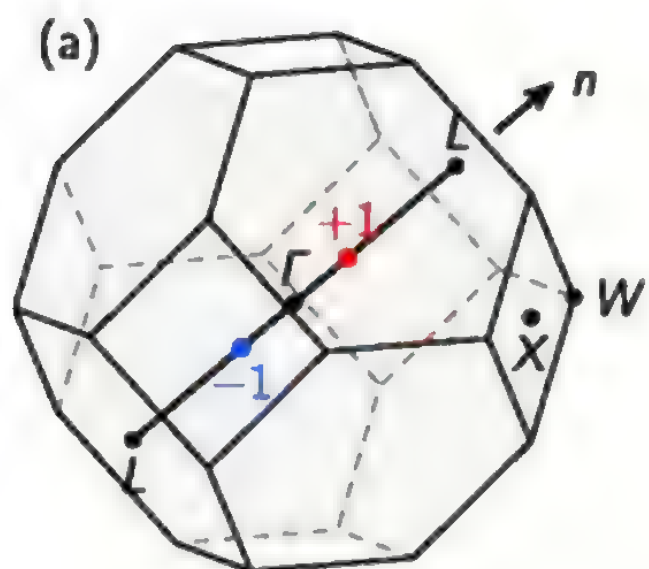


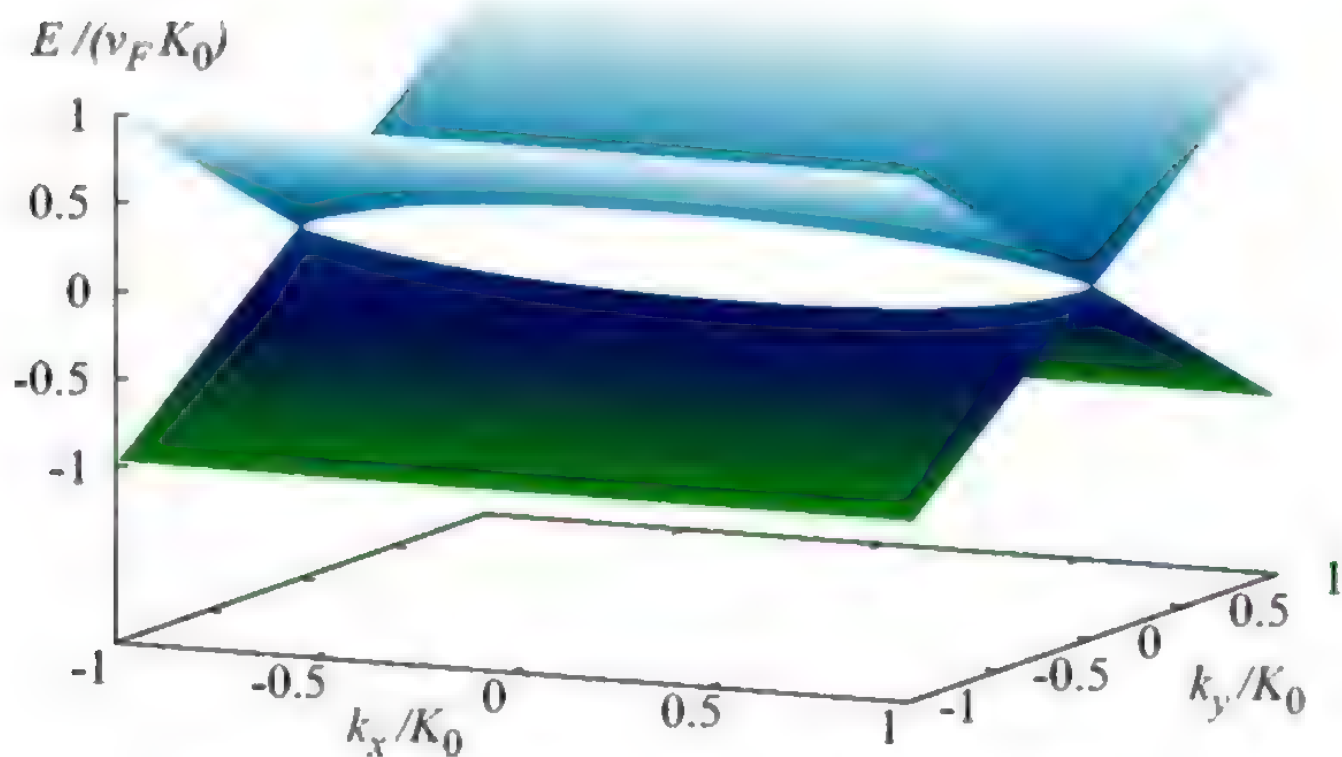
(a)

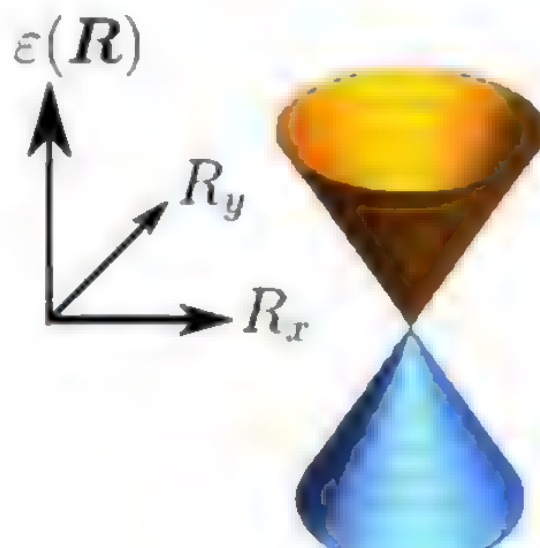
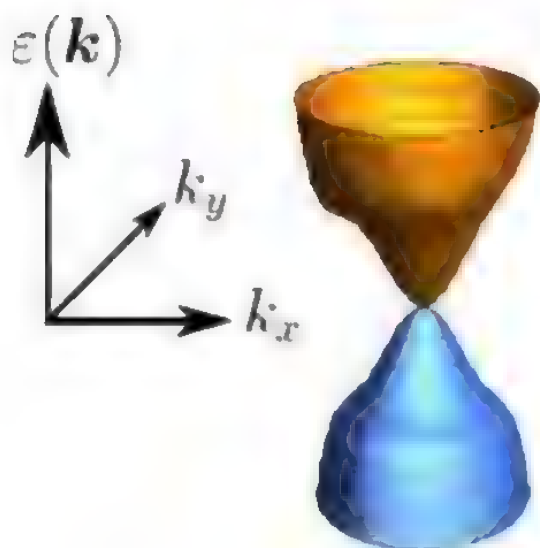
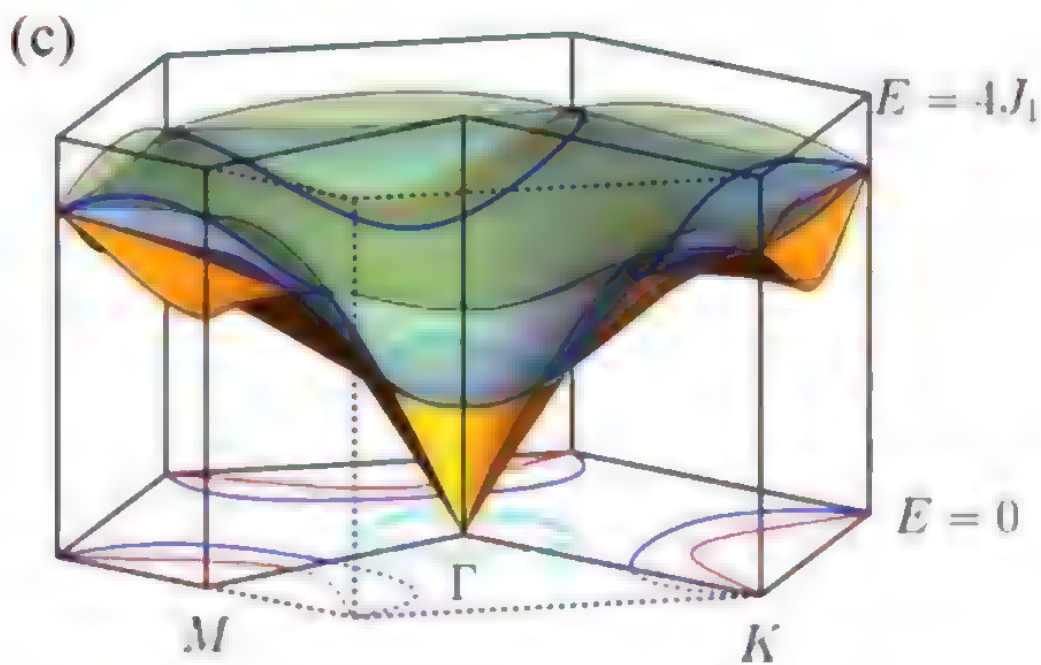
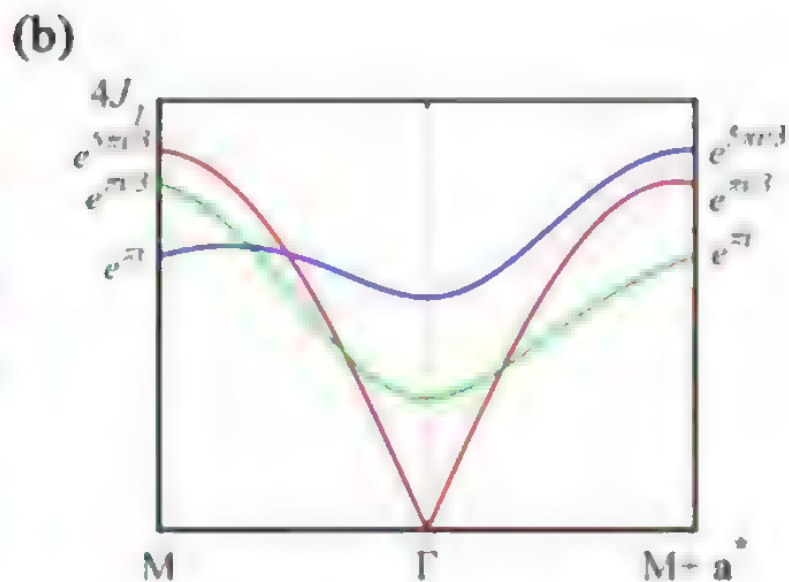
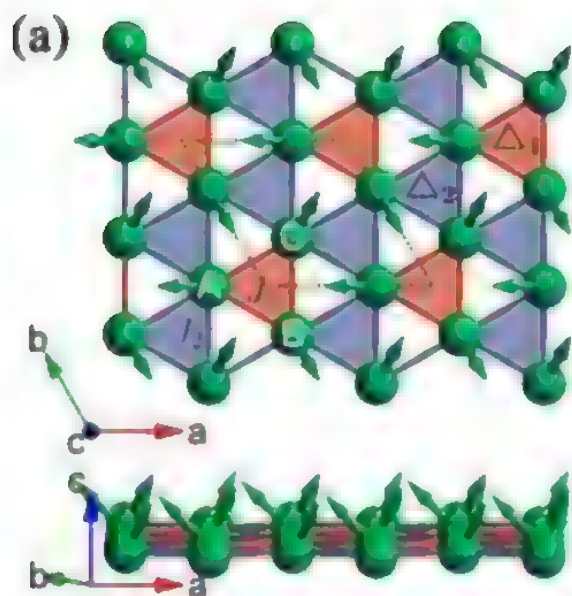


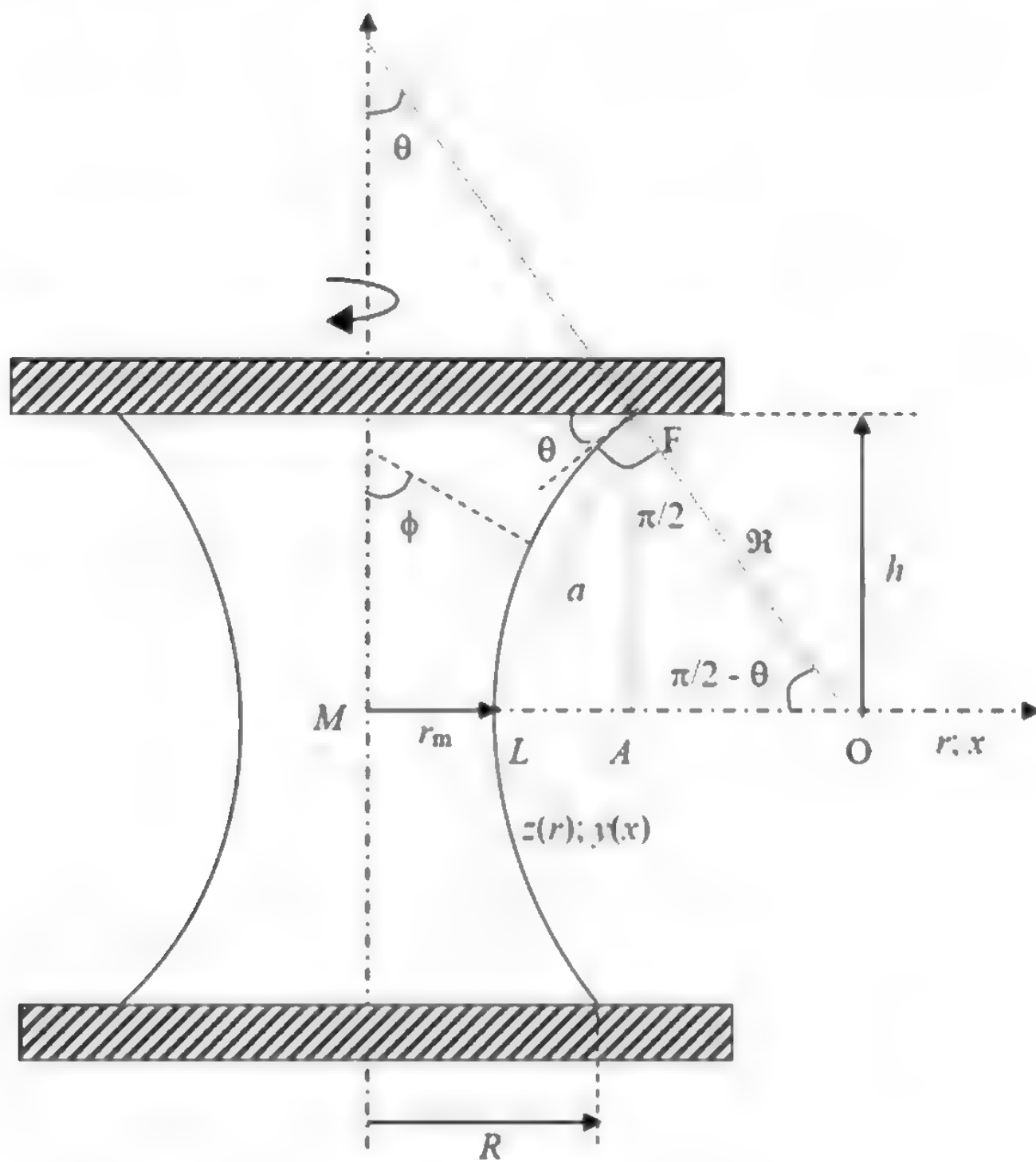
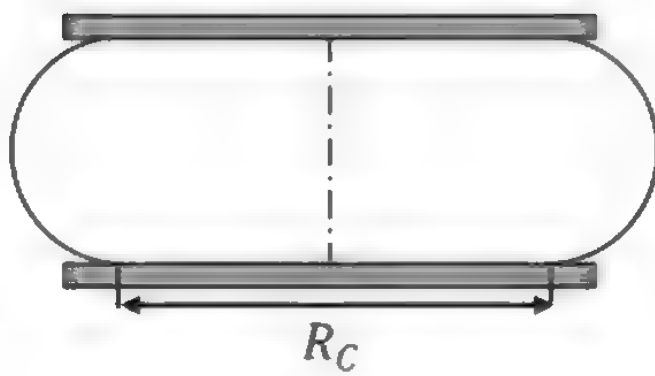
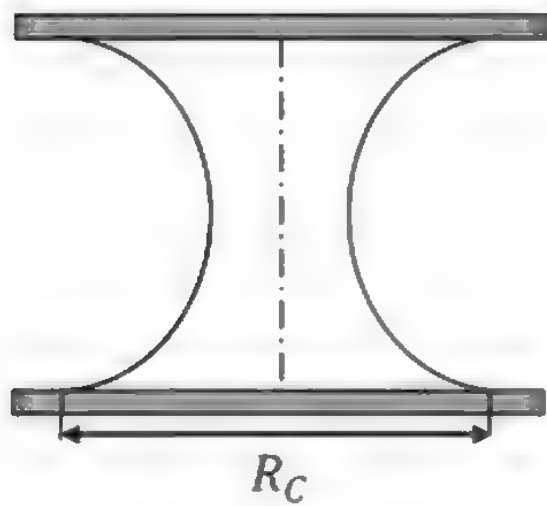
(b)



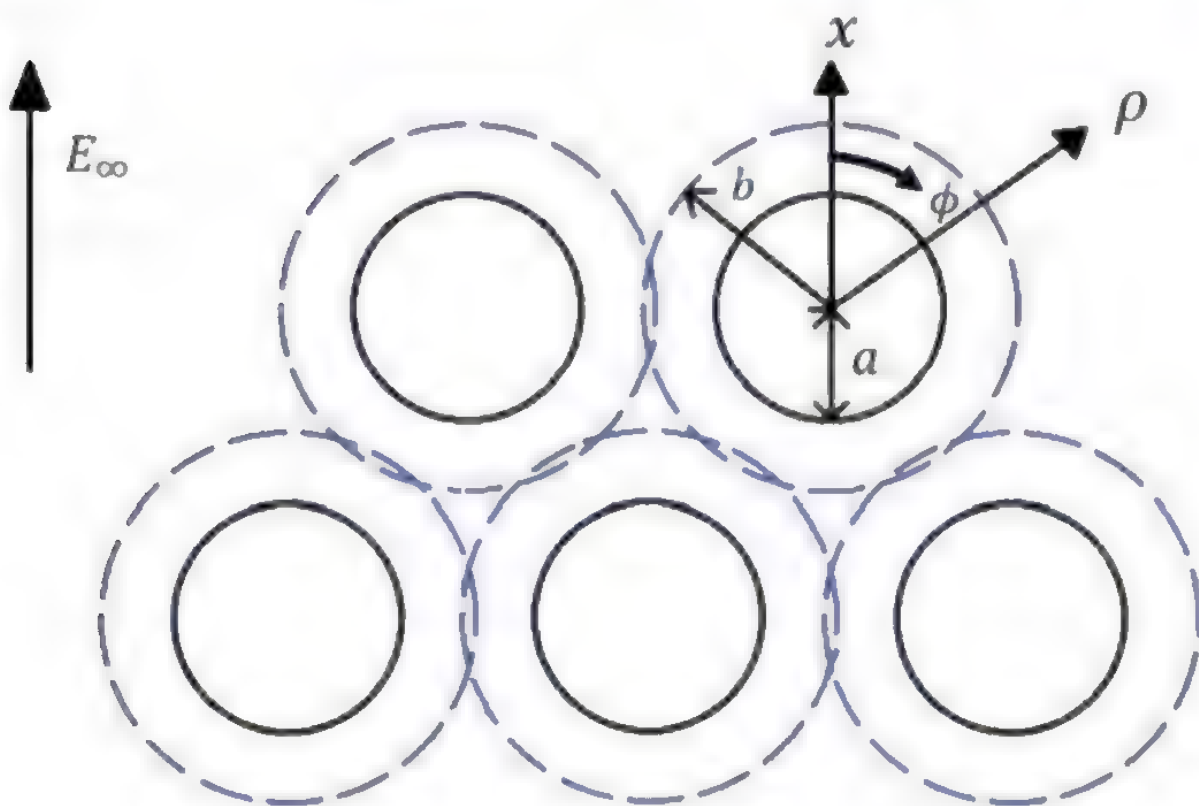
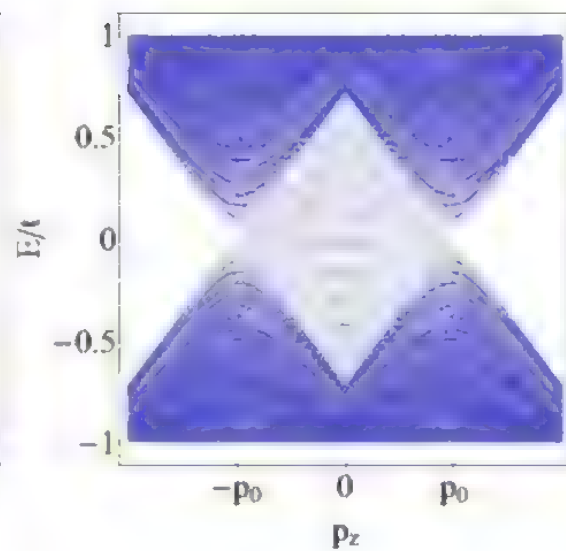
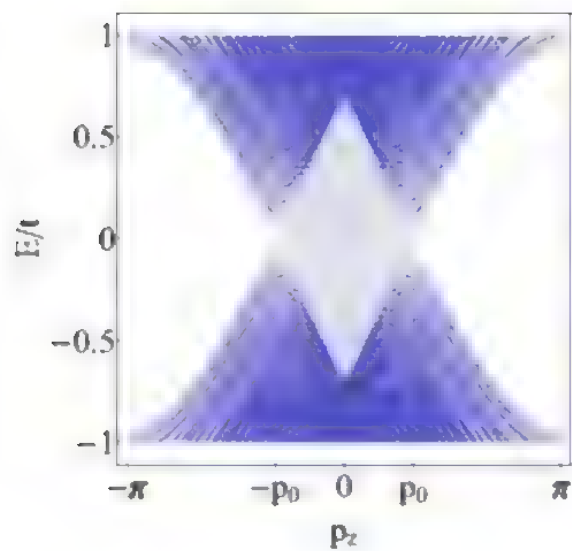


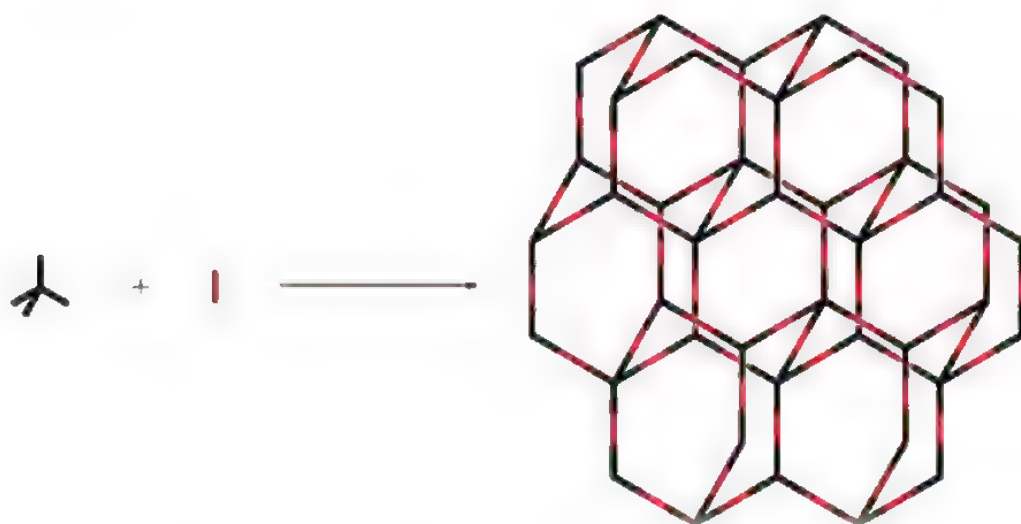
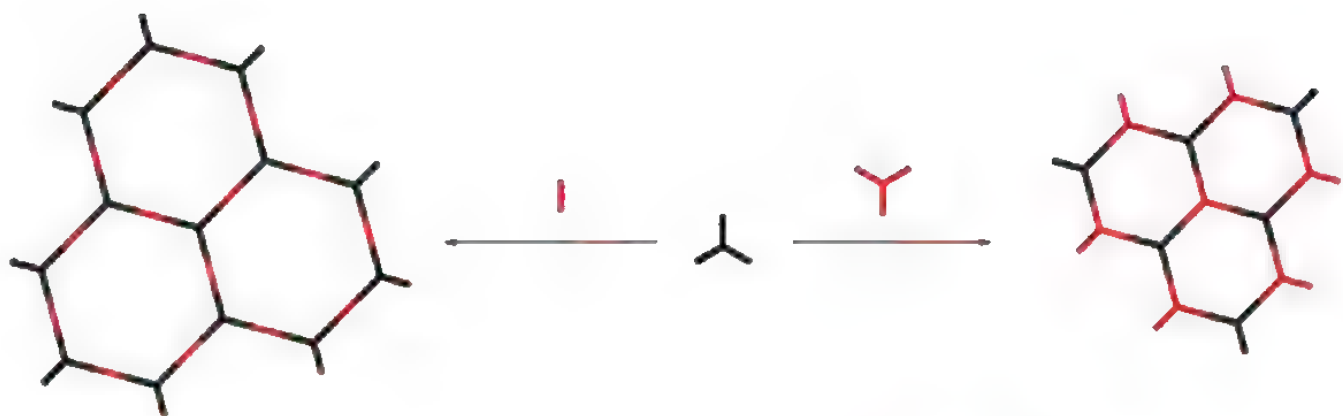


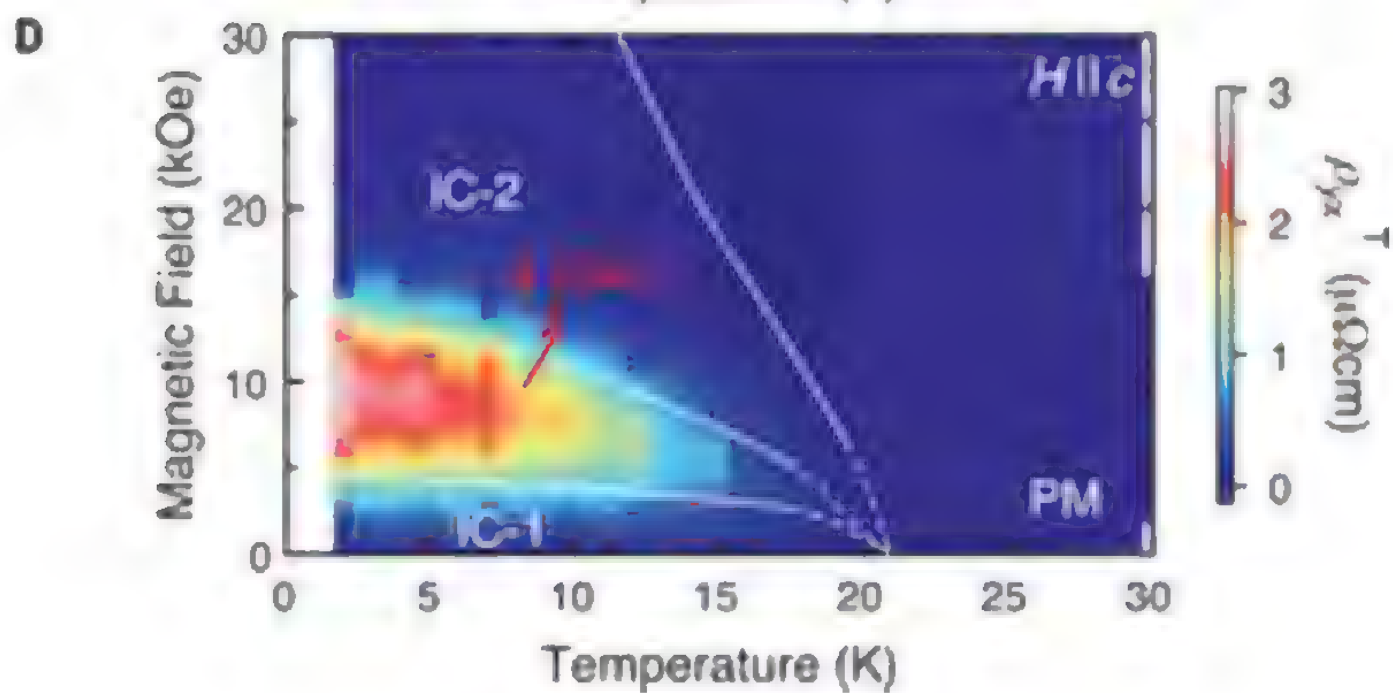
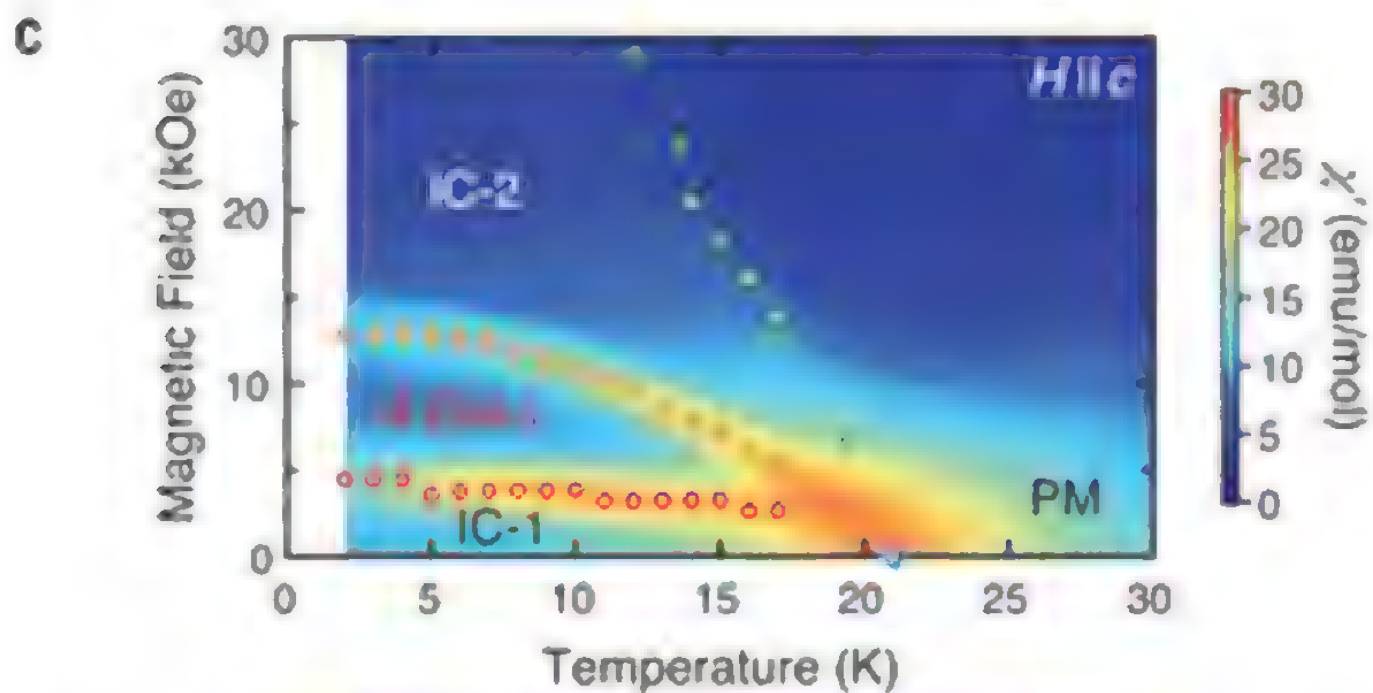
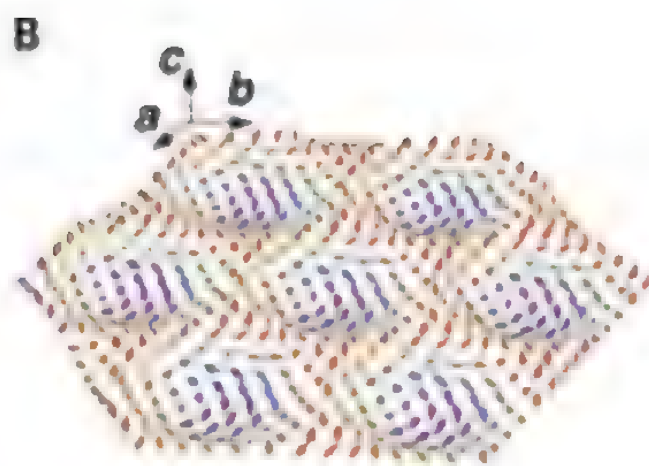
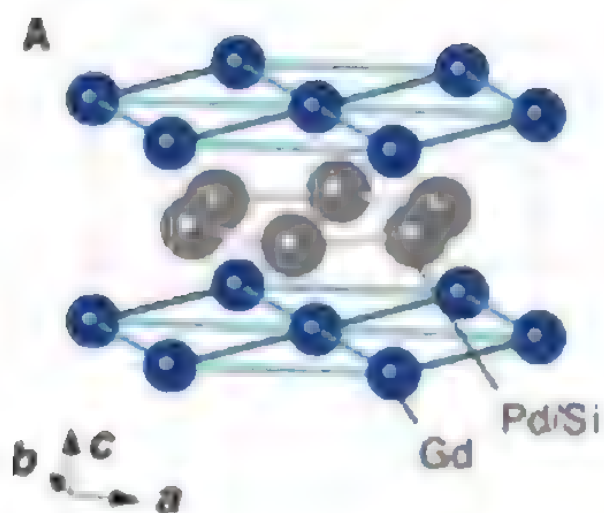




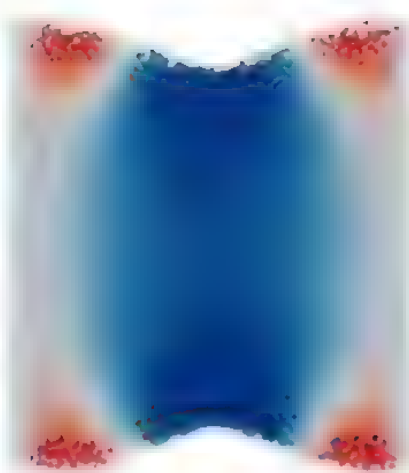
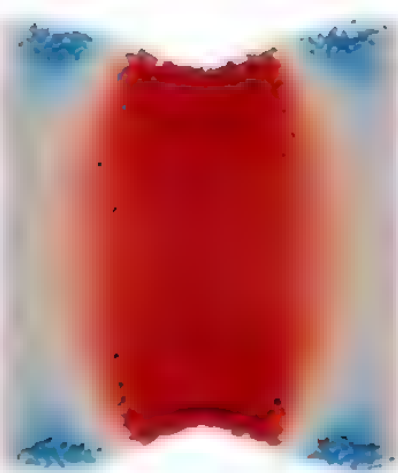
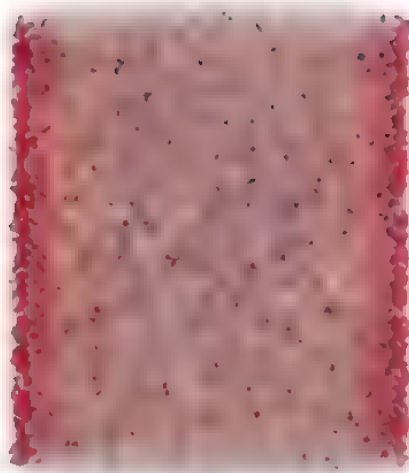
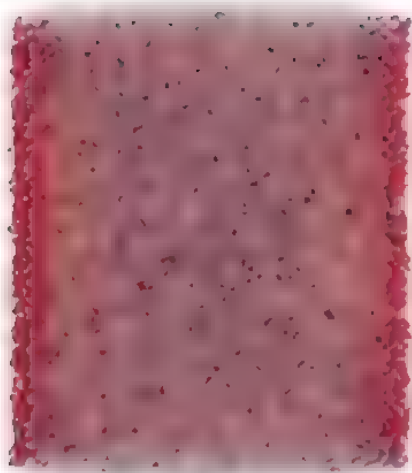


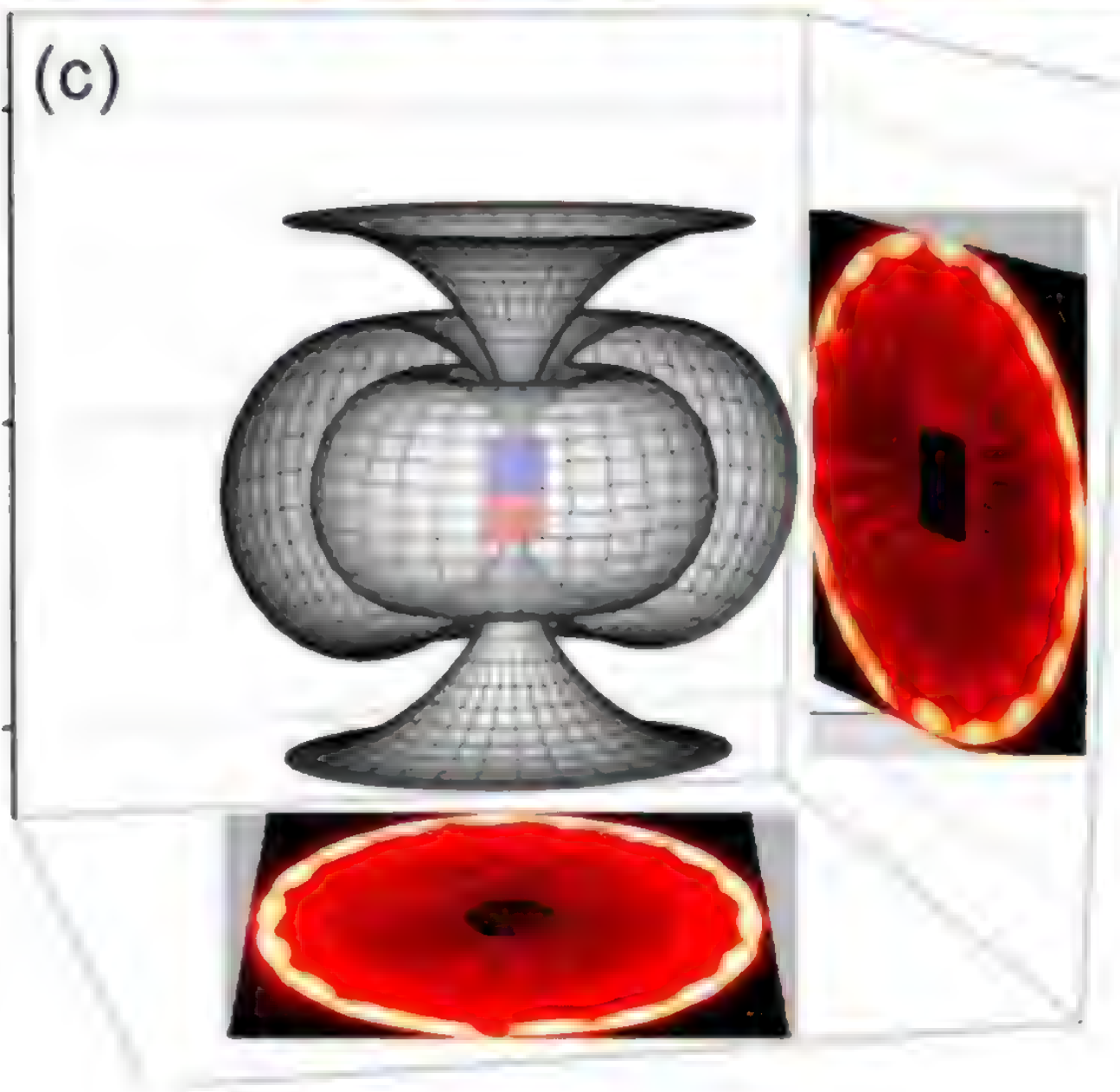
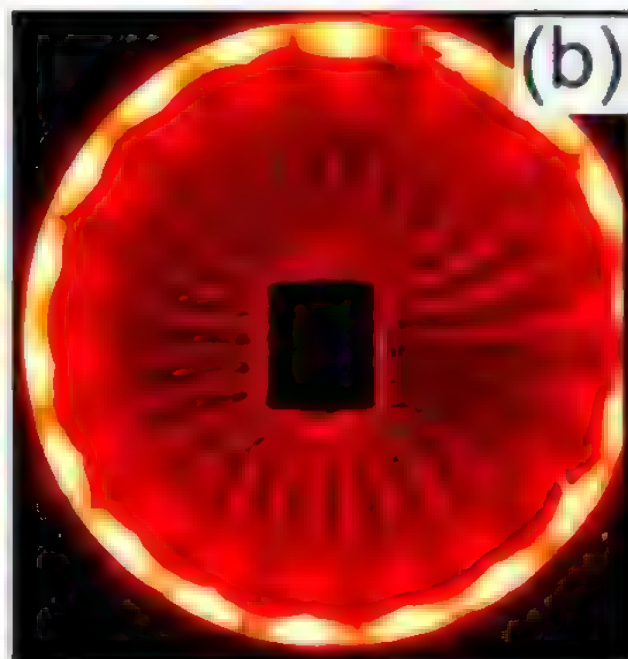
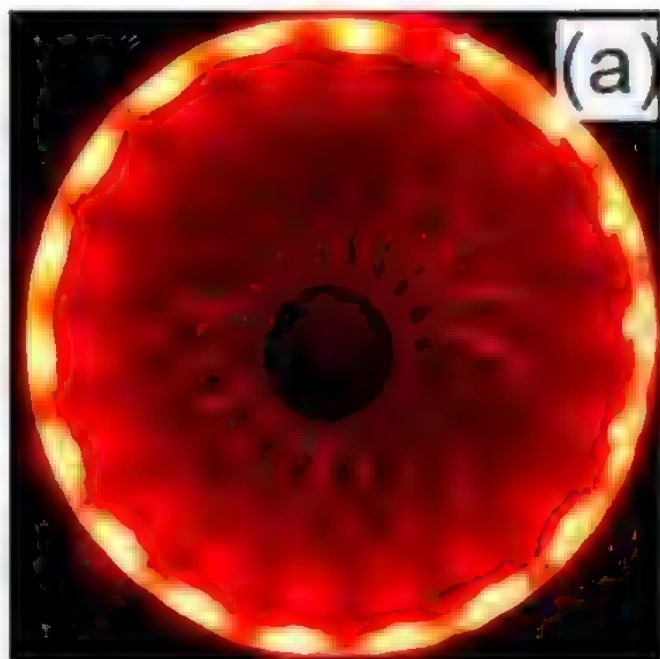


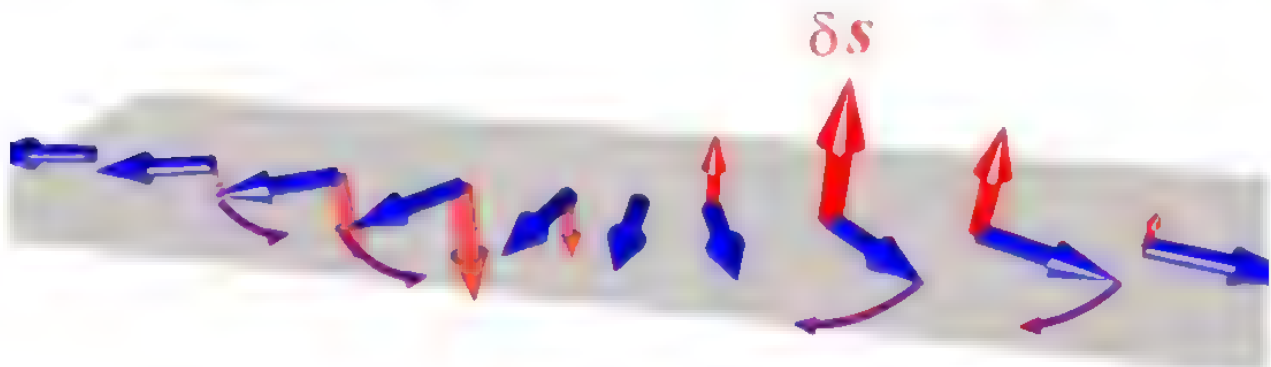
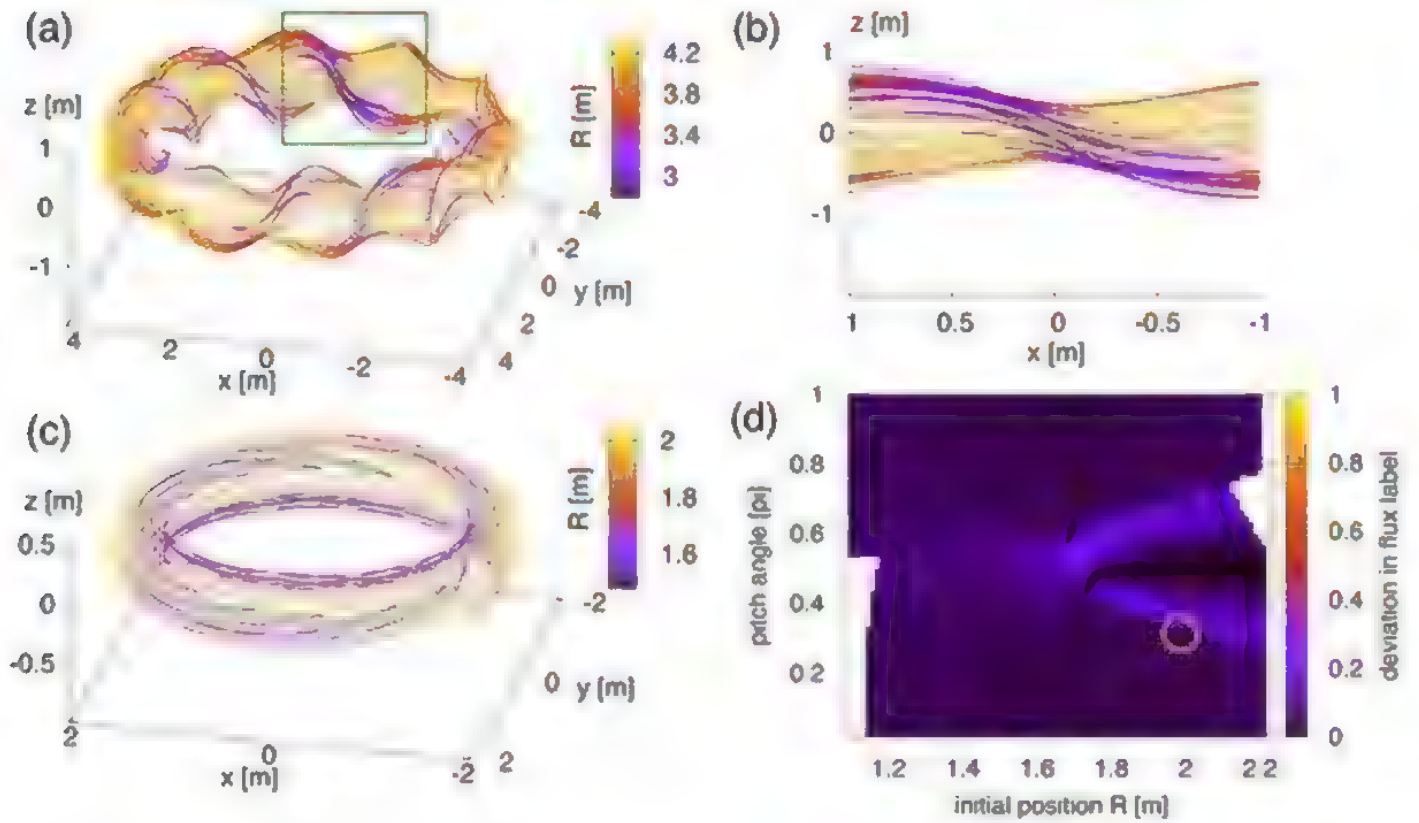
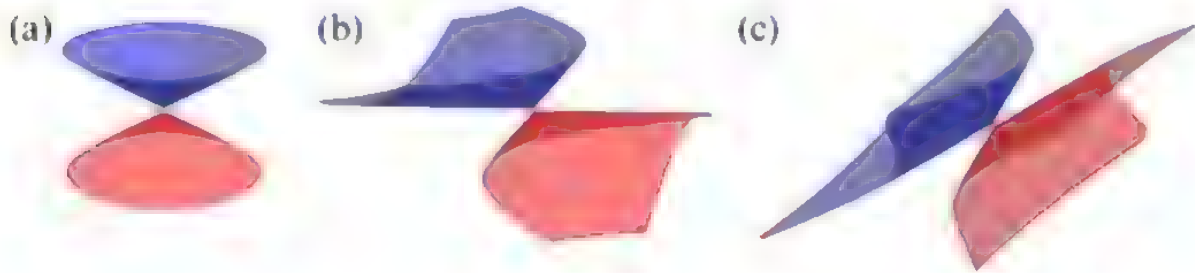
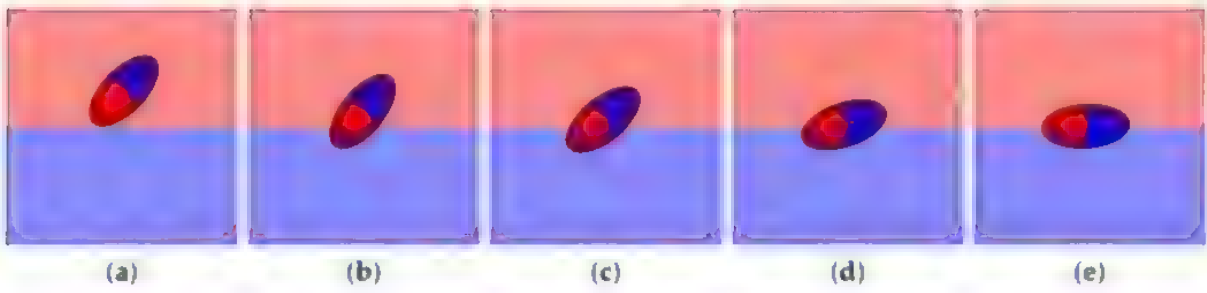




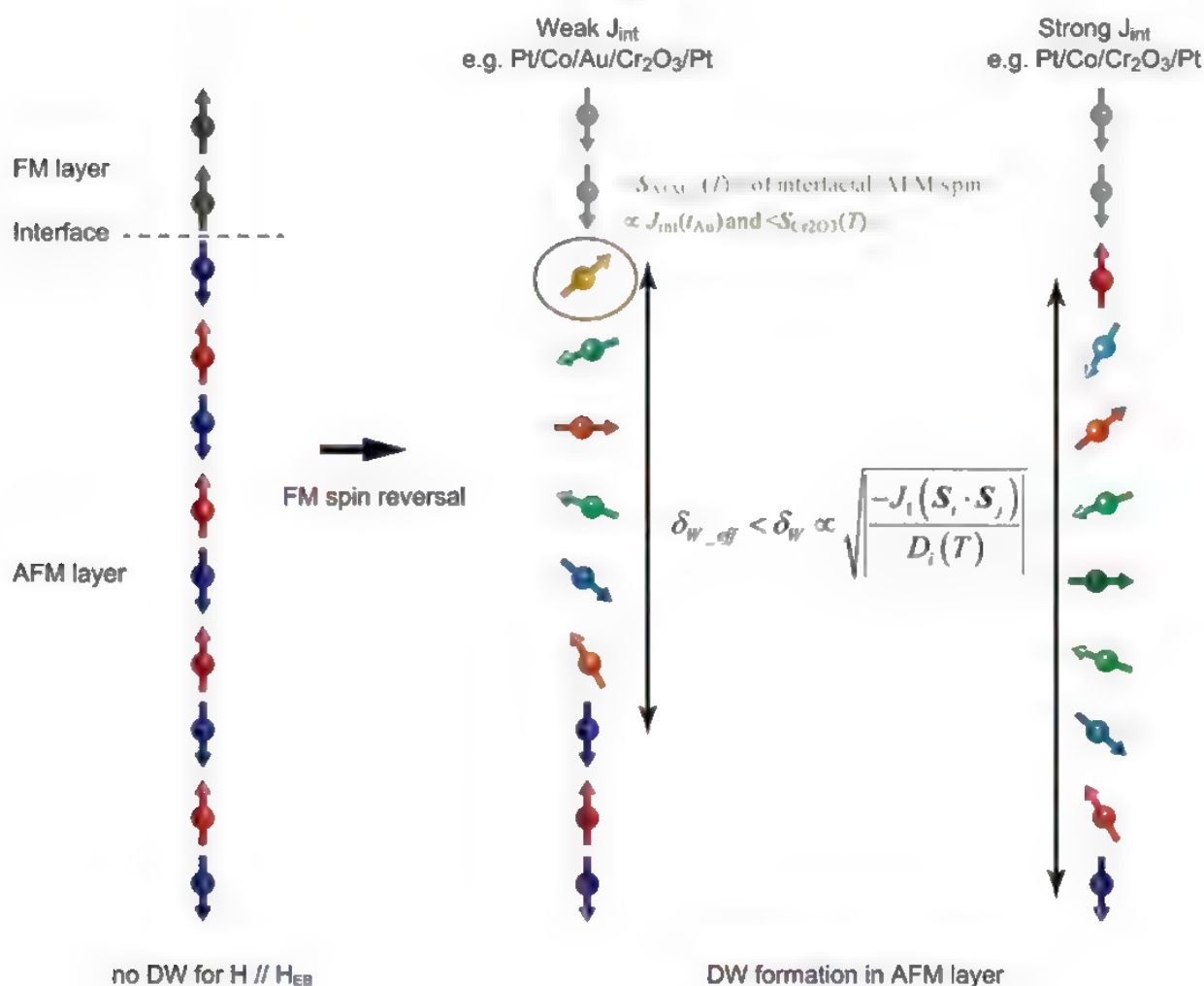
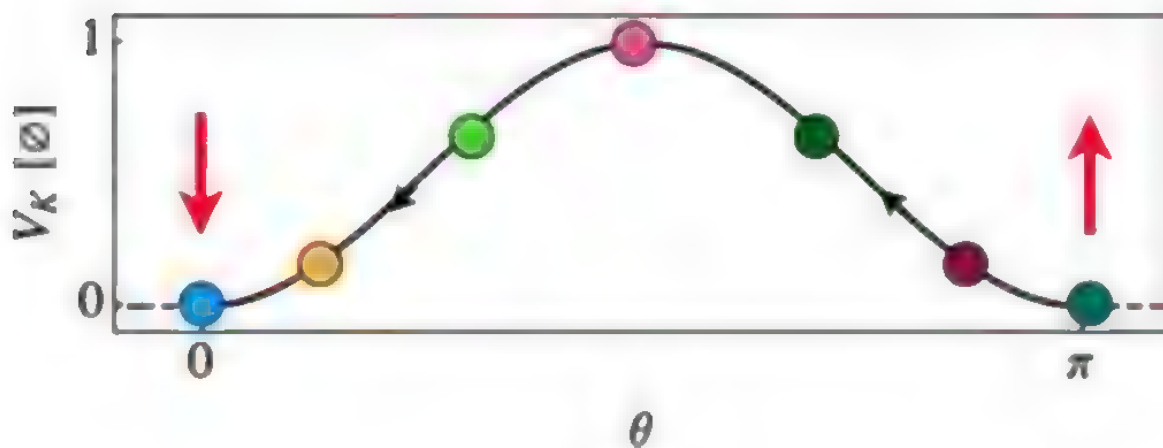
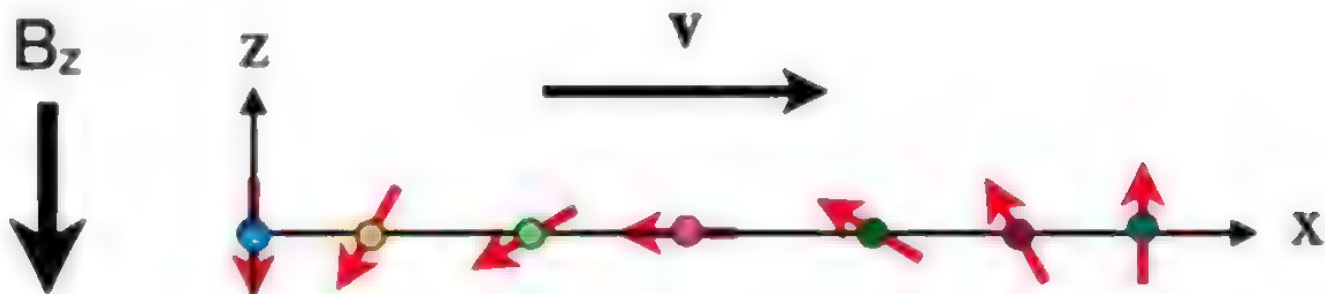




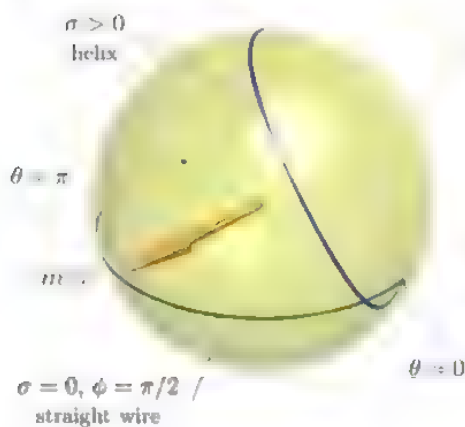




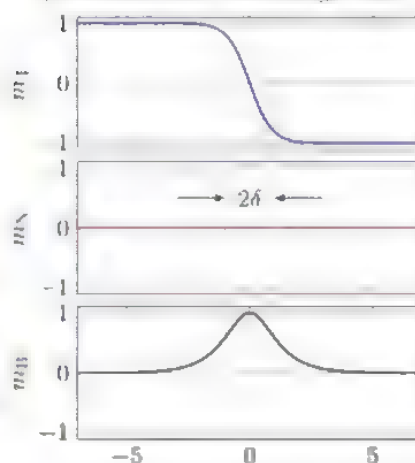




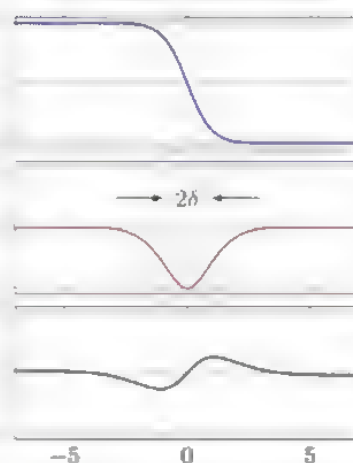
(a) Schematic of the evolution of magnetization vector



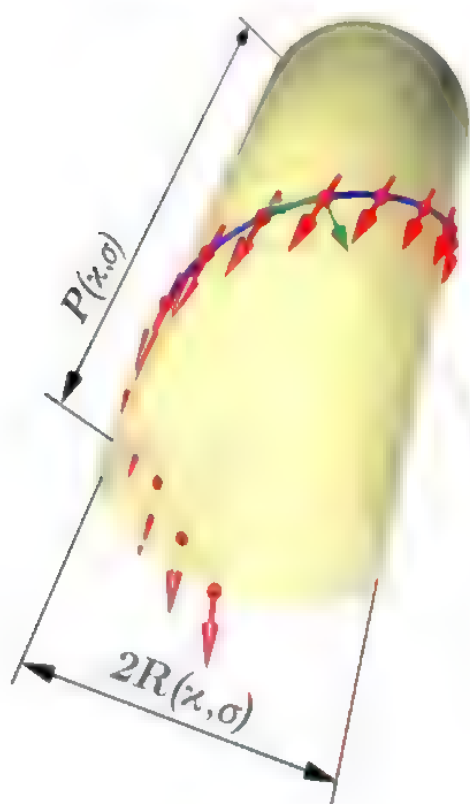
(b) Domain wall in a straight wire



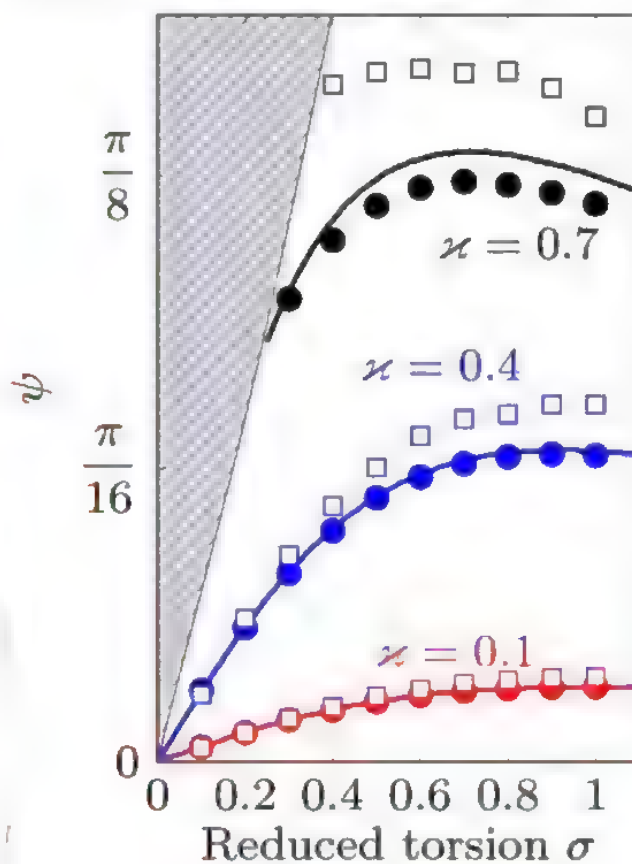
(c) Domain wall in a helix



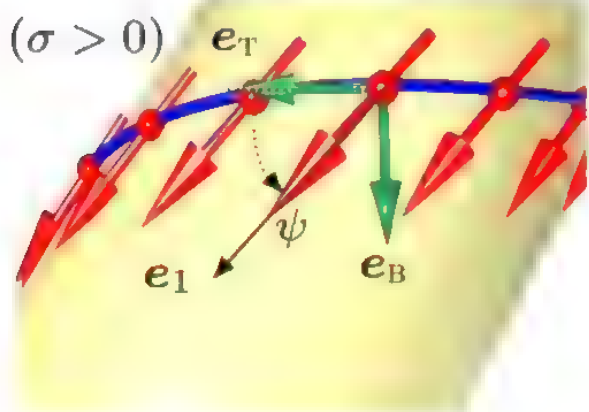
(a) Schematics



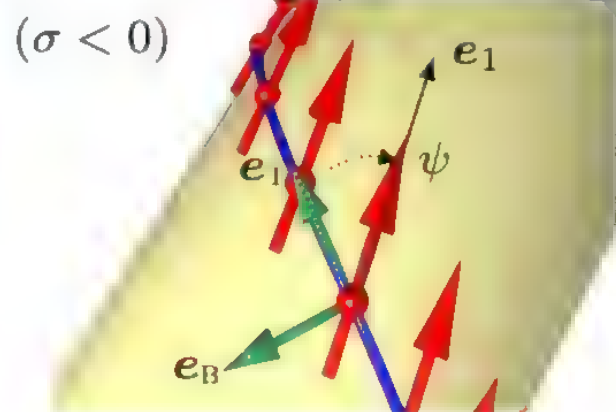
(b) Rotation angle



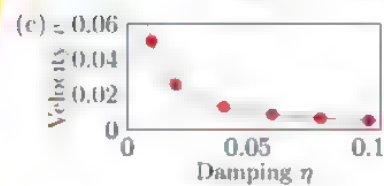
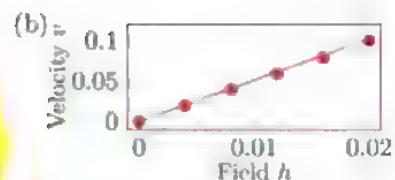
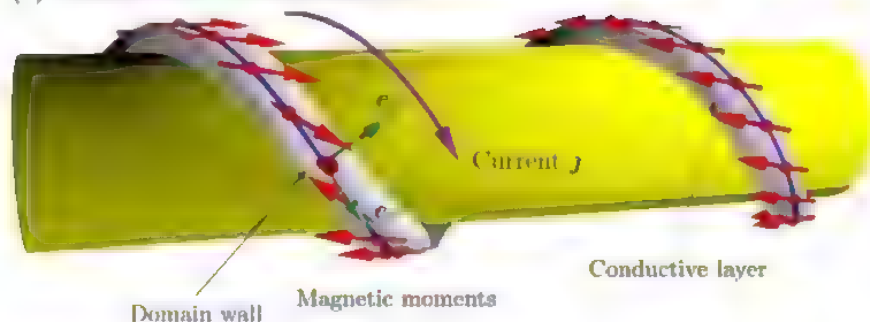
(c) Right-handed helix



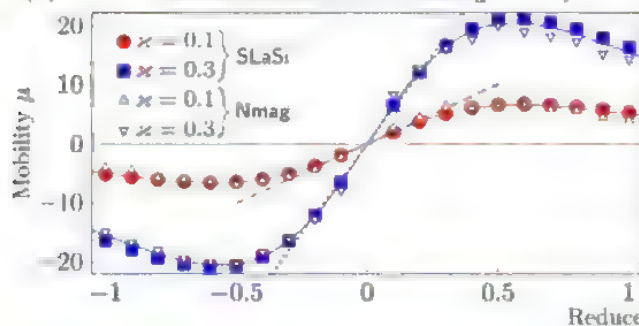
(d) Left-handed helix



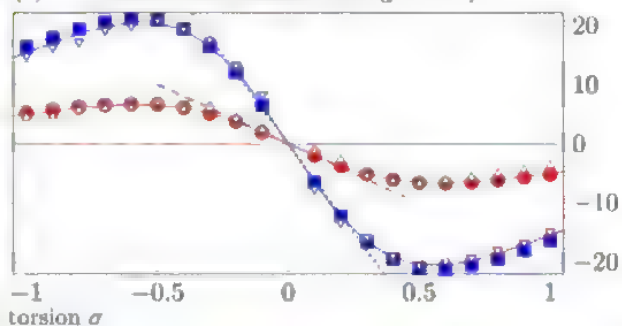
(a) Schematics of SLaSi simulations



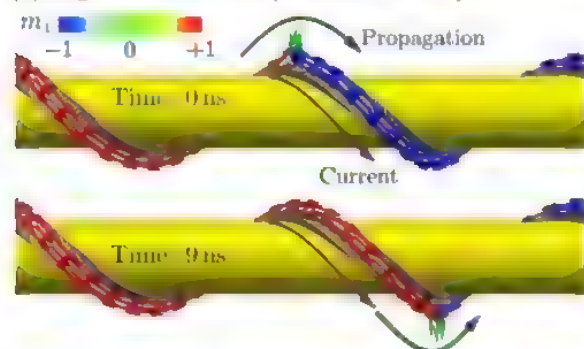
(d) Head-to-head domain wall ( $p = +1$ )



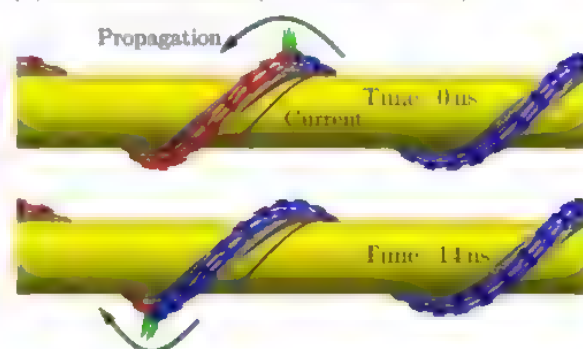
(e) Tail-to-tail domain wall ( $p = -1$ )



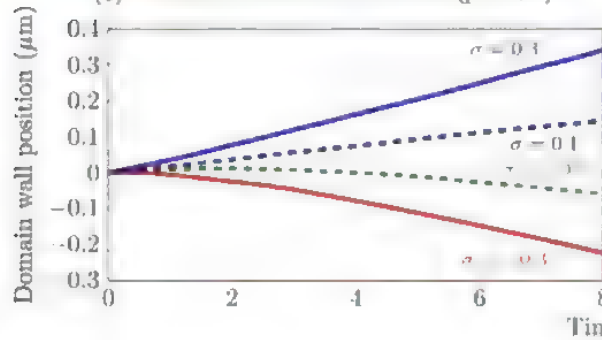
(a) Right-handed helix ( $\sigma = 0.1, \mathcal{C} = +1$ )



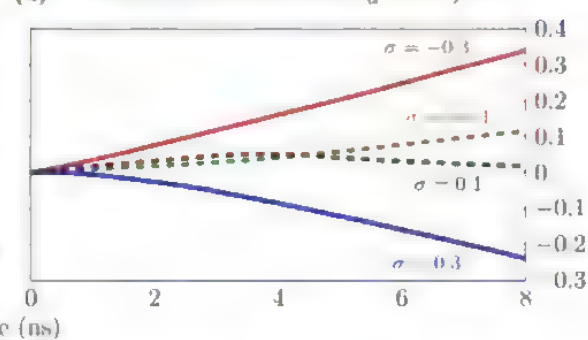
(b) Left-handed helix ( $\sigma = -0.1, \mathcal{C} = -1$ )



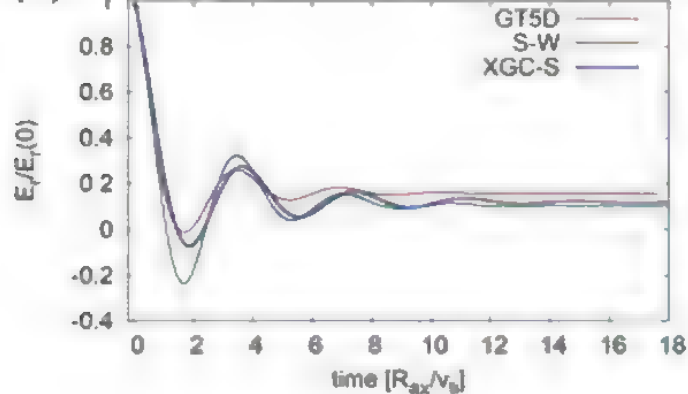
(c) Head-to-head domain wall ( $p = +1$ )



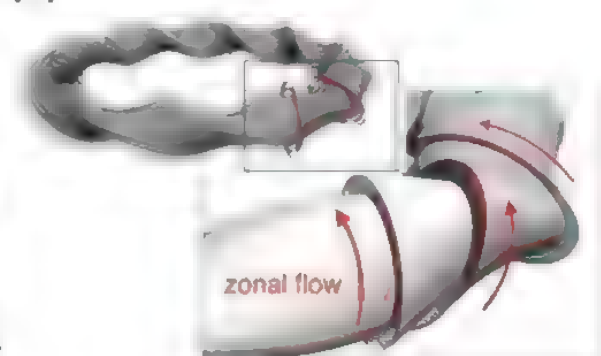
(d) Tail-to-tail domain wall ( $p = -1$ )

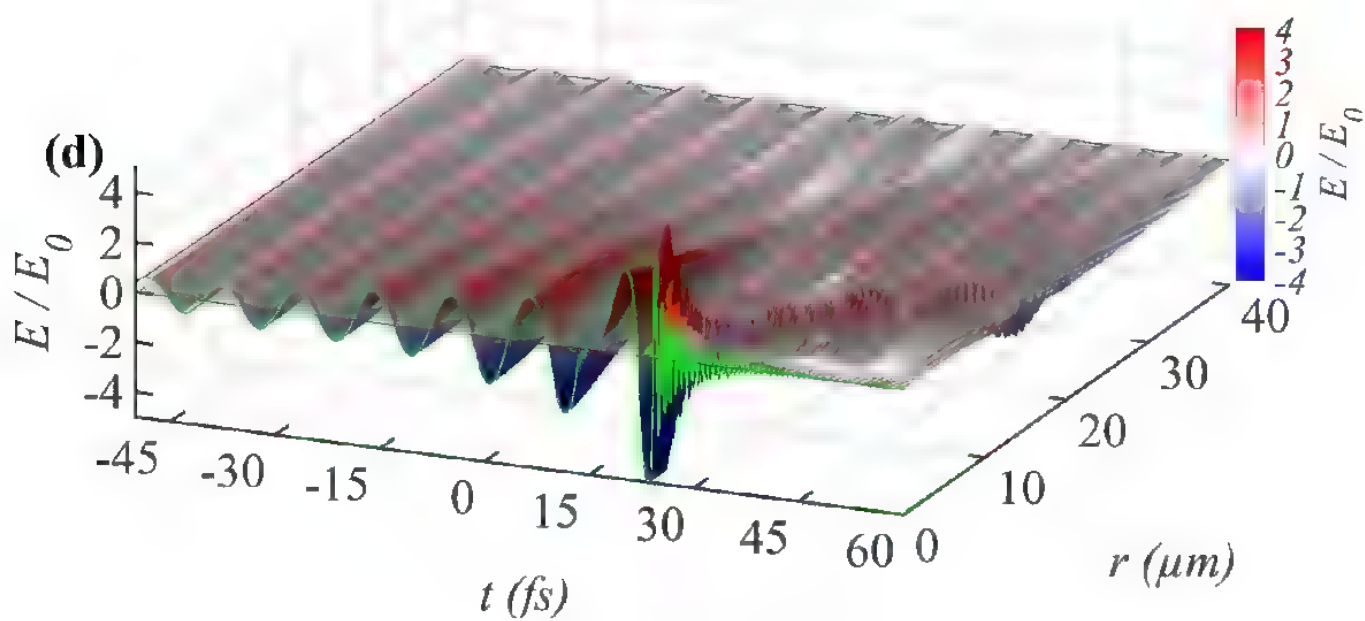
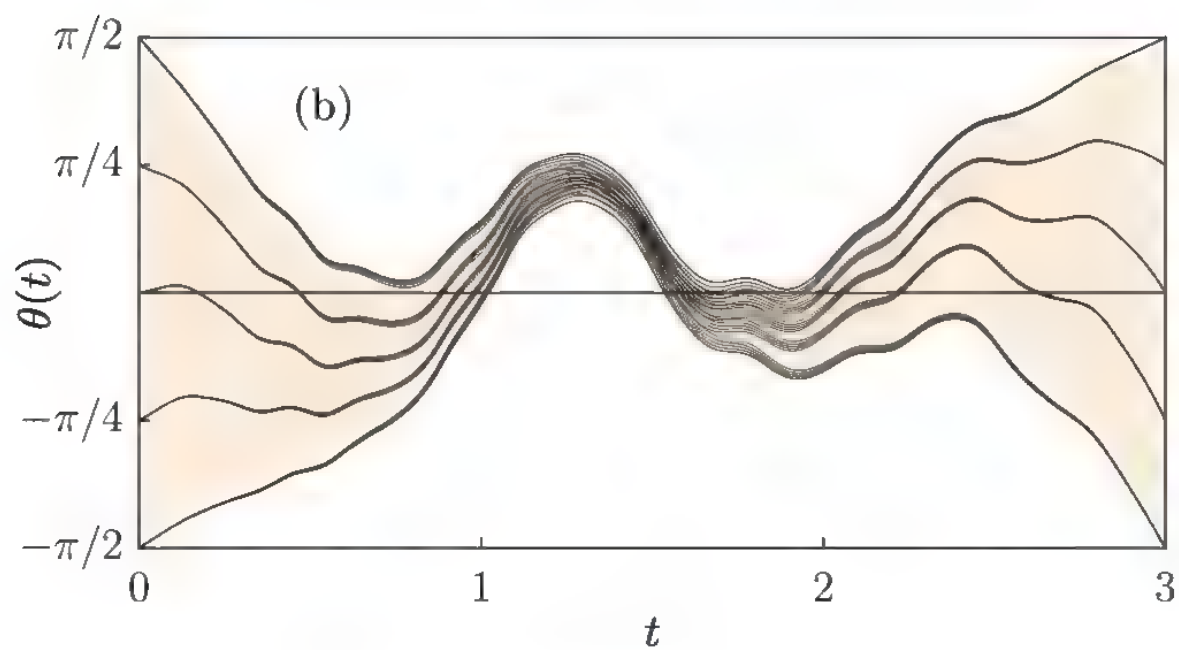
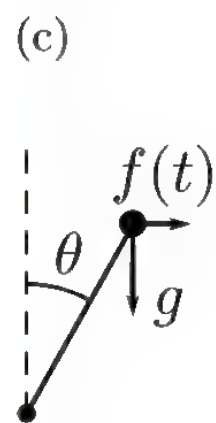
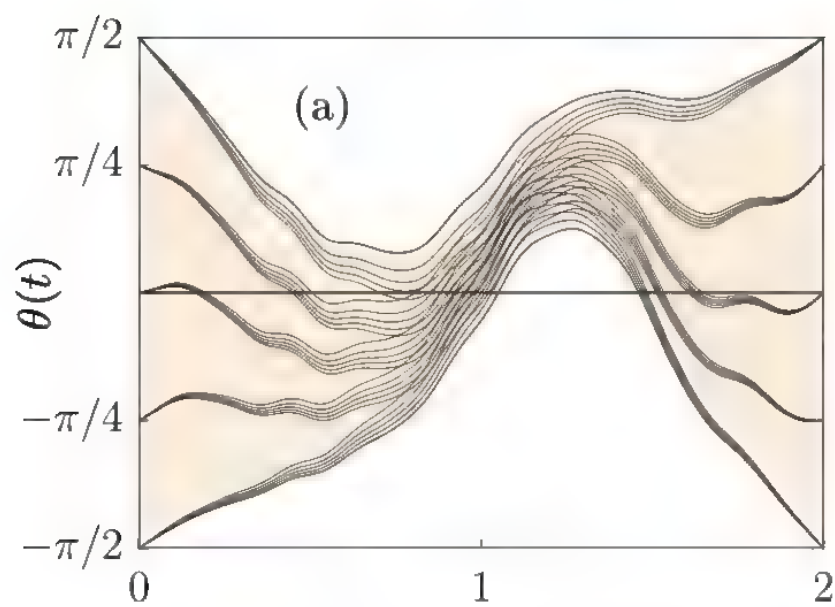


(a)

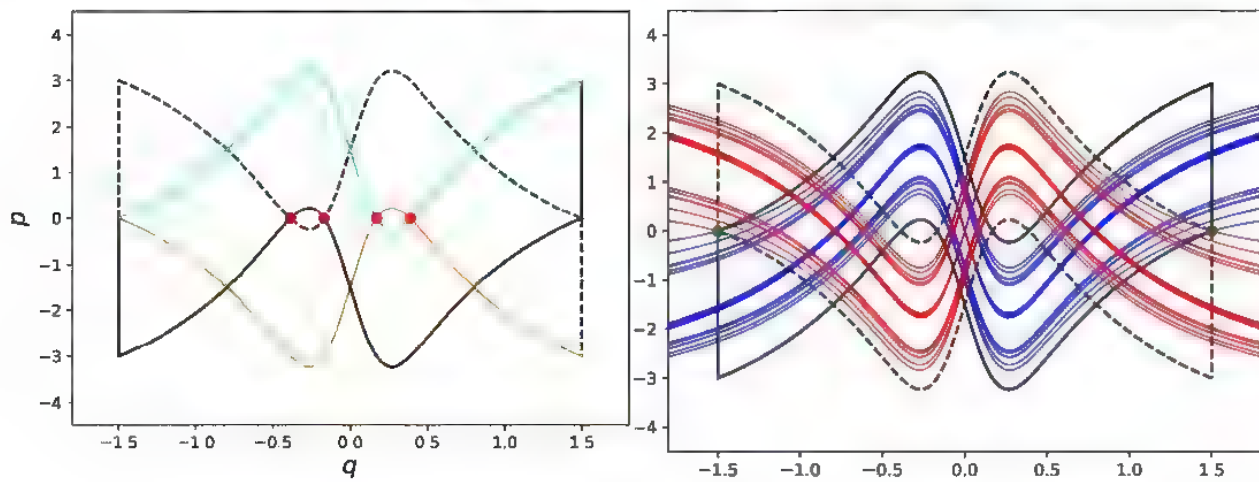
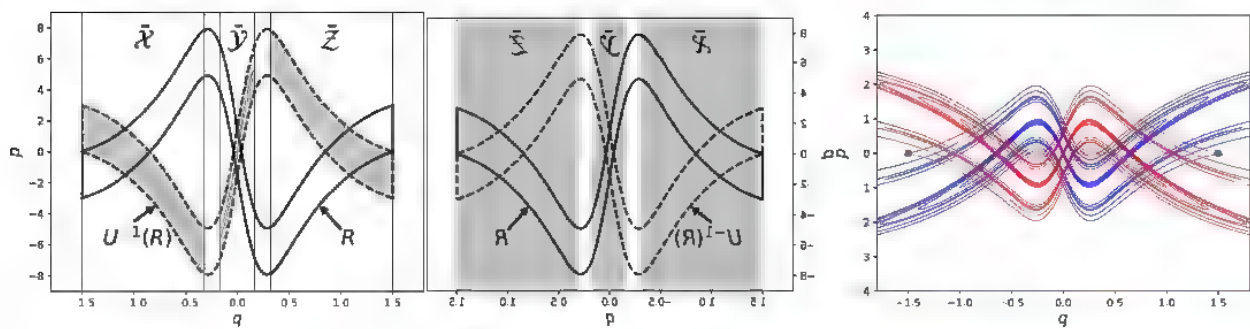
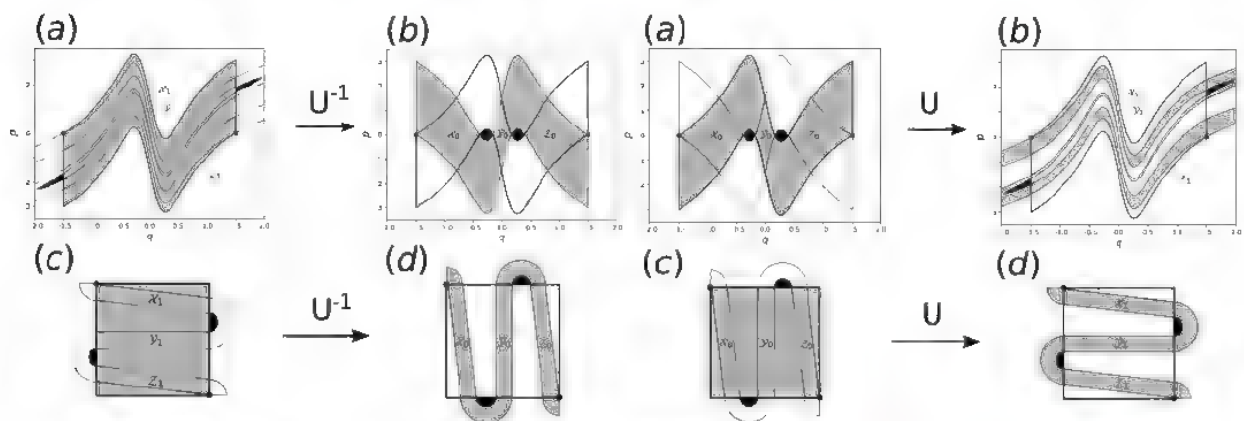
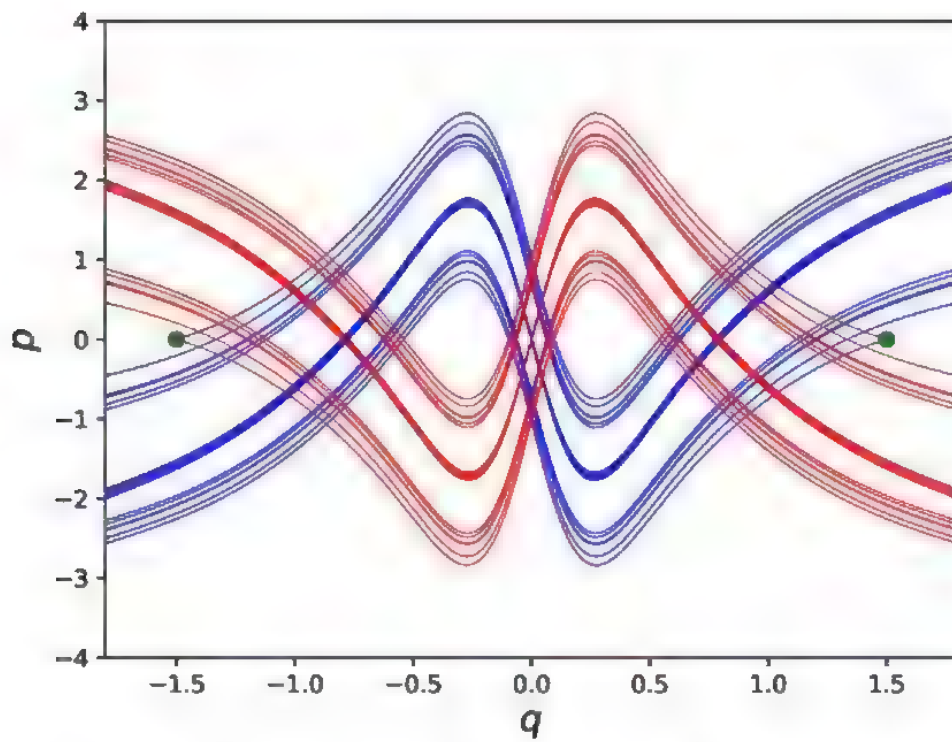


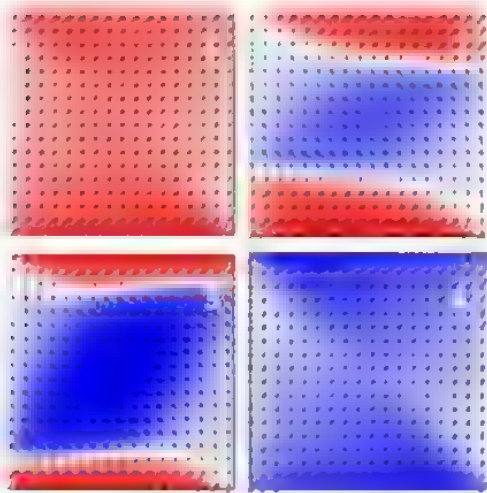
(b)



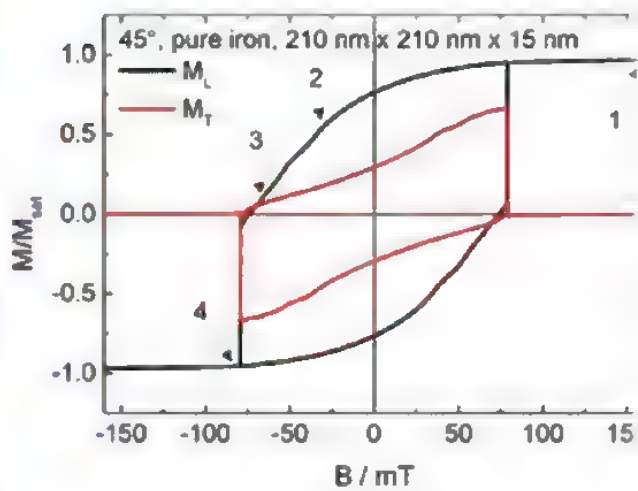




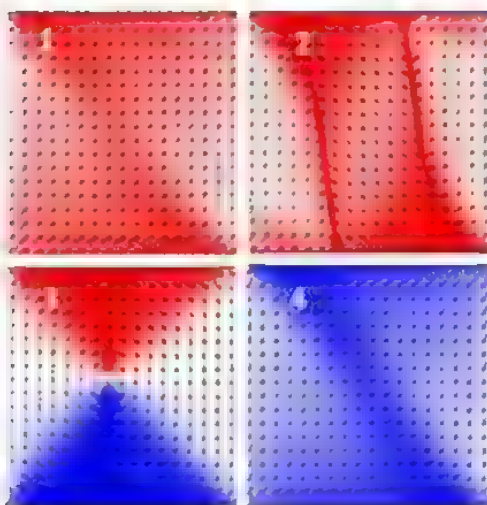




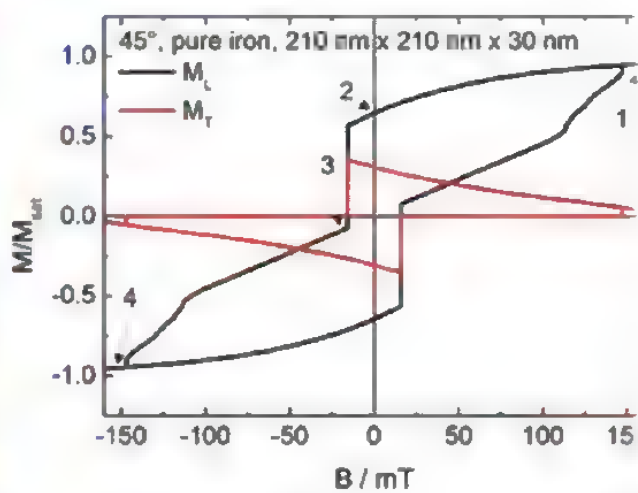
(a)



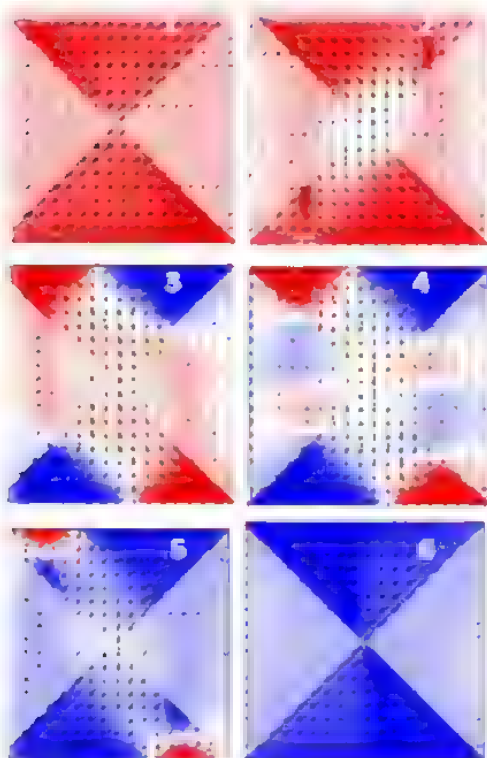
(b)



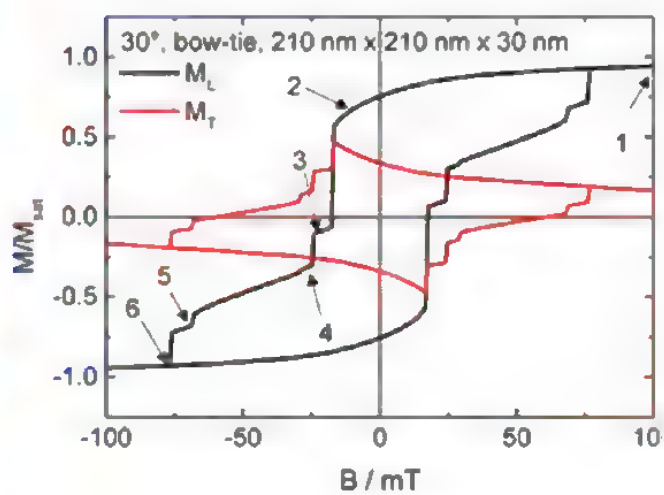
(c)



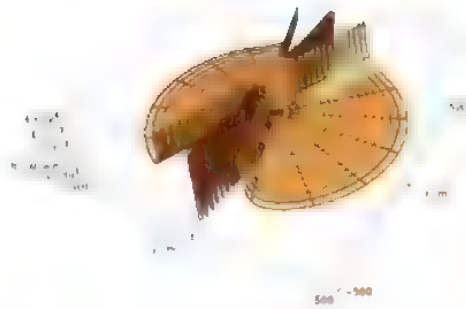
(d)



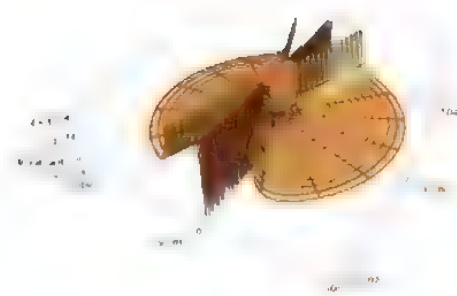
(e)



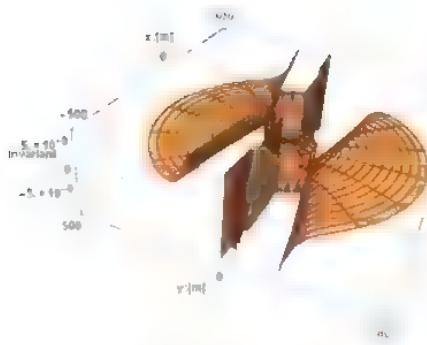
(f)



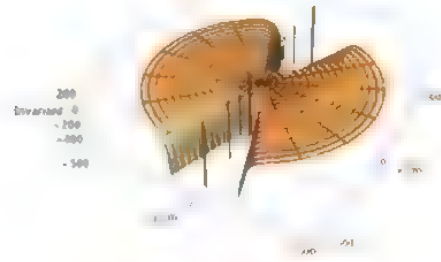
(c)  $r_2$  and  $t = 10$  s



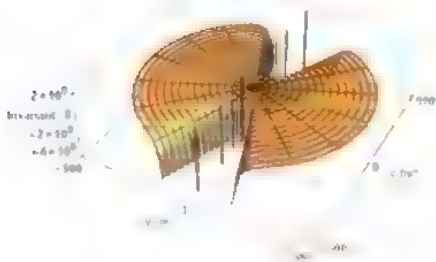
(d)  $r_2$  and  $t = 100$  s



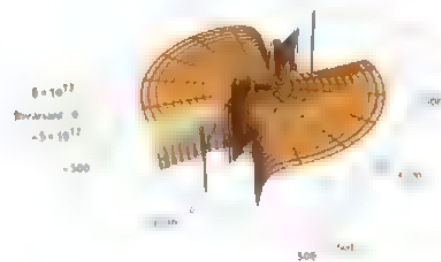
(a)  $w_2$  and  $t = 0$  s



(b)  $w_2$  and  $t = 1.0$  s



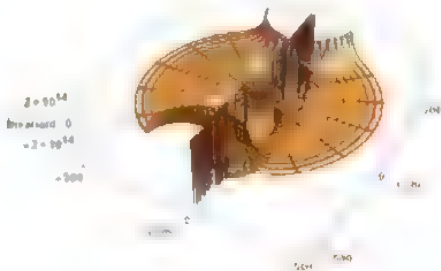
(c)  $w_2$  and  $t = 10.0$  s



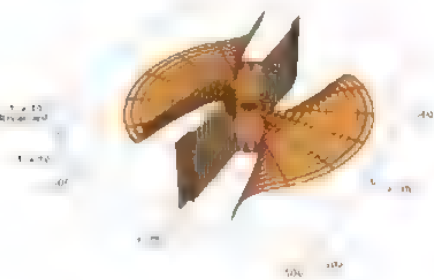
(d)  $w_2$  and  $t = 100.0$  s



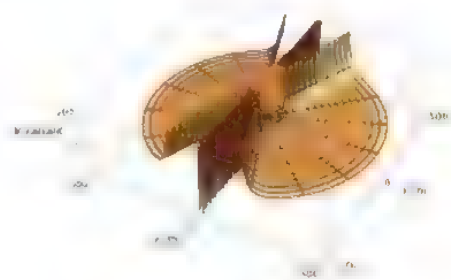
(e)  $w_2$  and  $t = 200.0$  s



(f)  $w_2$  and  $t = 300.0$  s

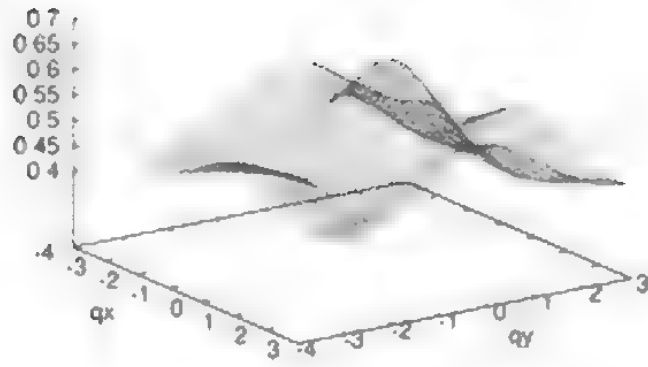


(a)  $r_2$  and  $t = 0.0$  s

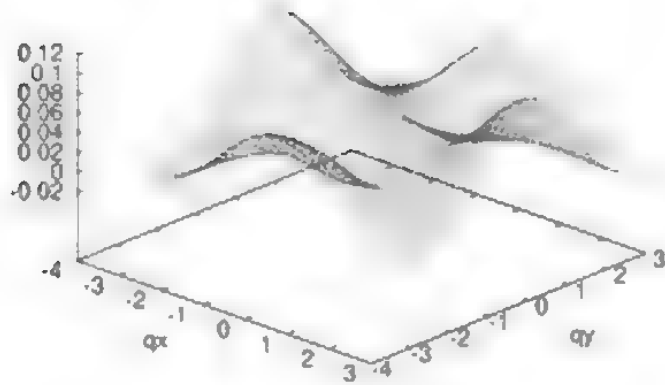


(b)  $r_2$  and  $t = 1$  s

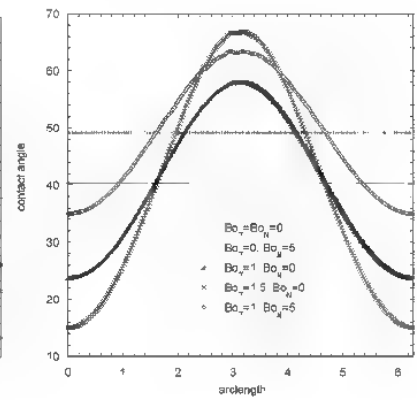
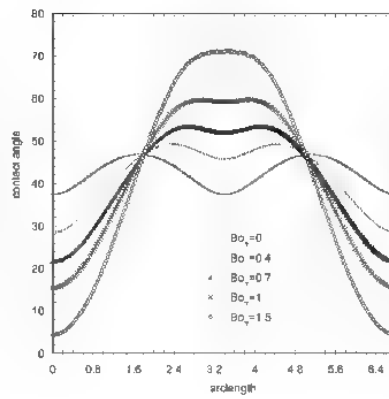
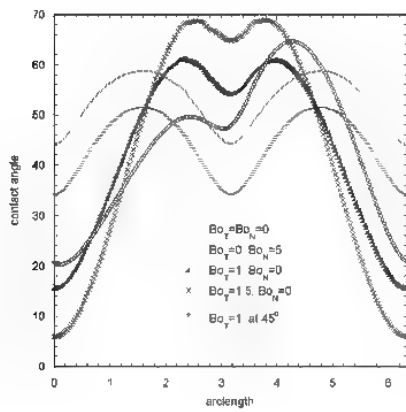
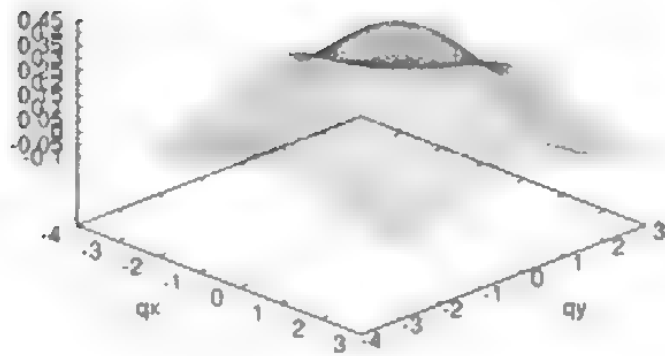
a)



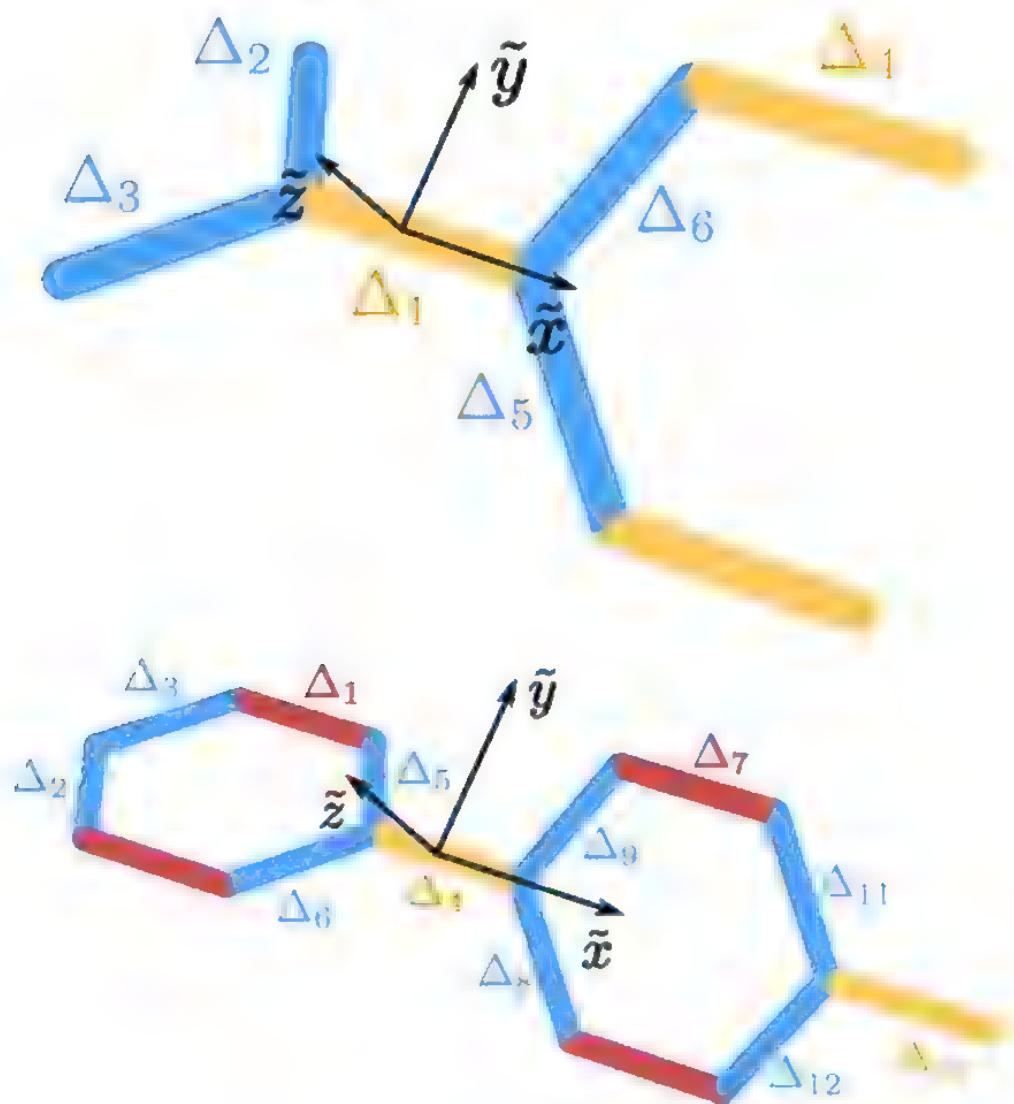
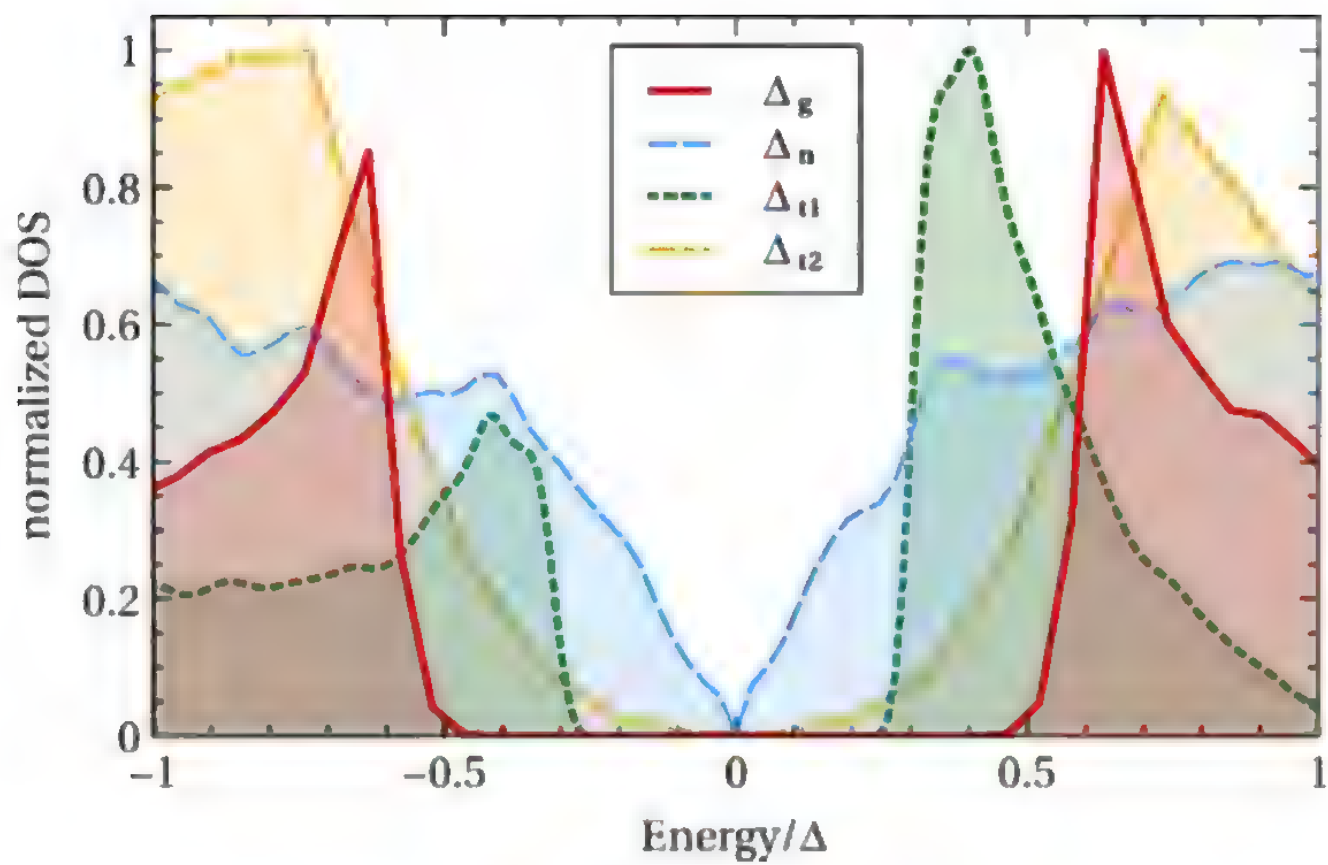
b)

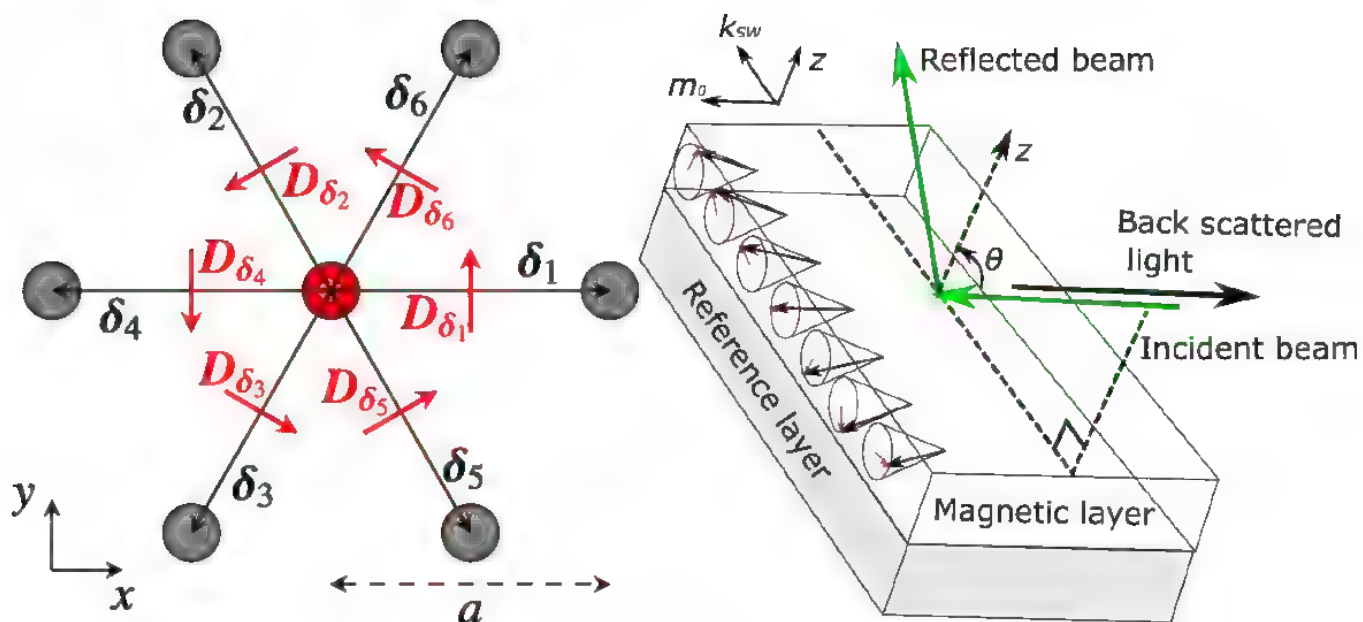


c)

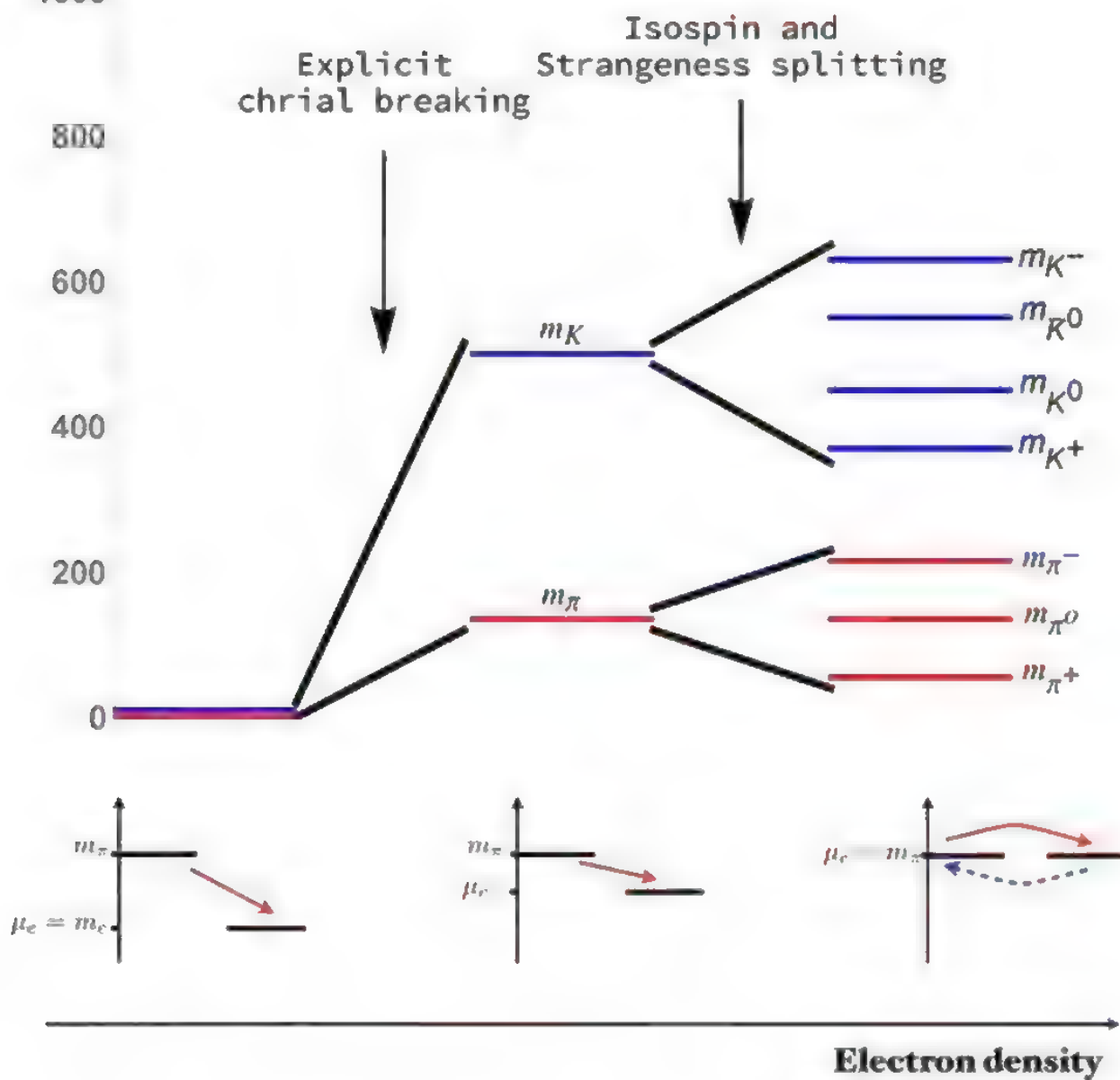


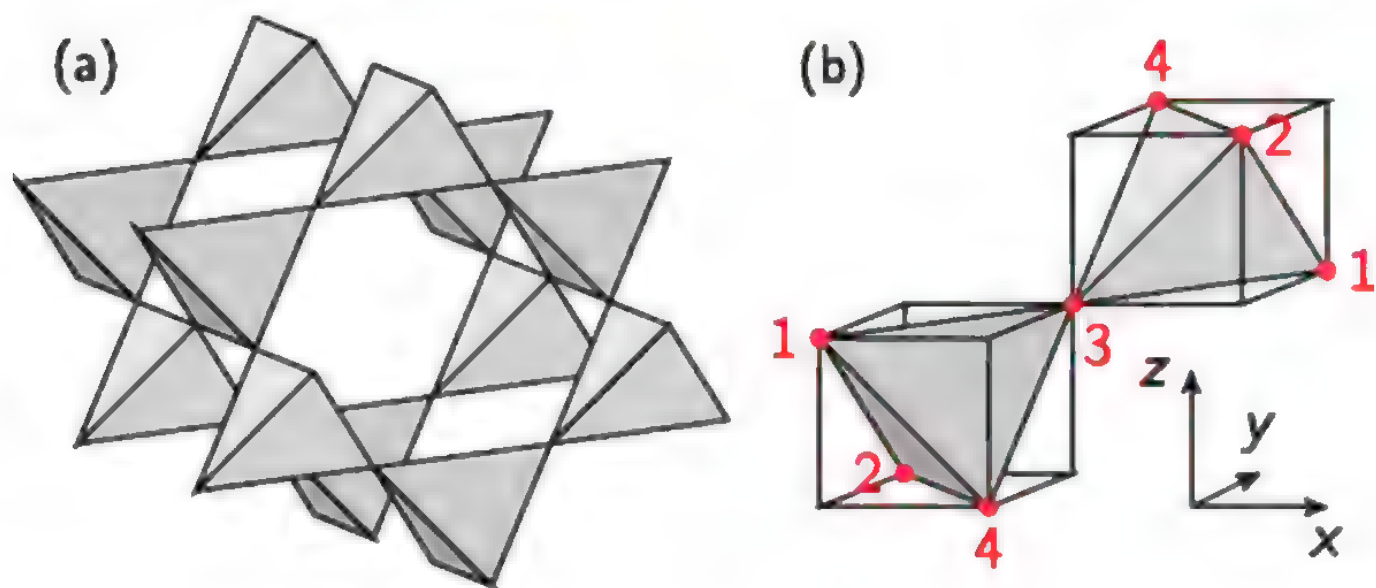
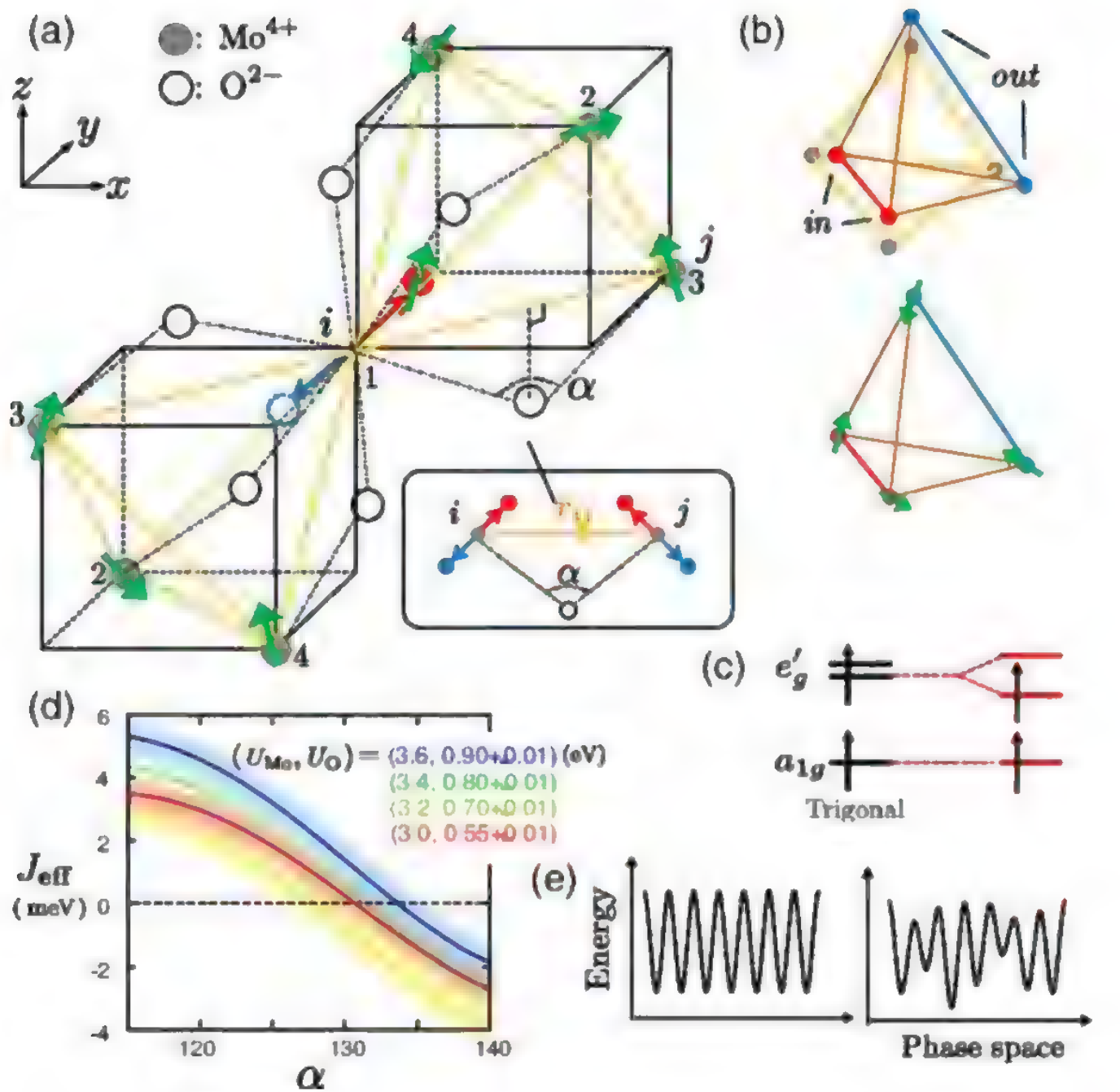




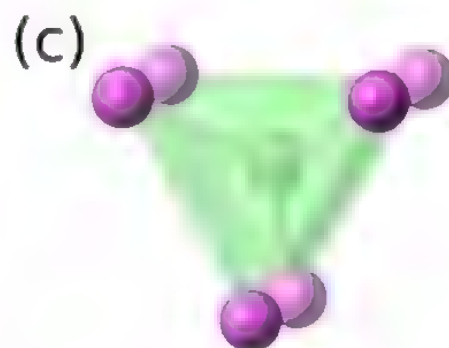
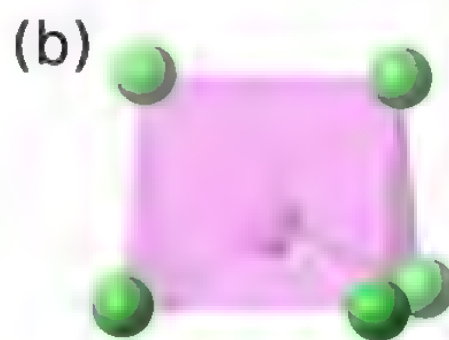
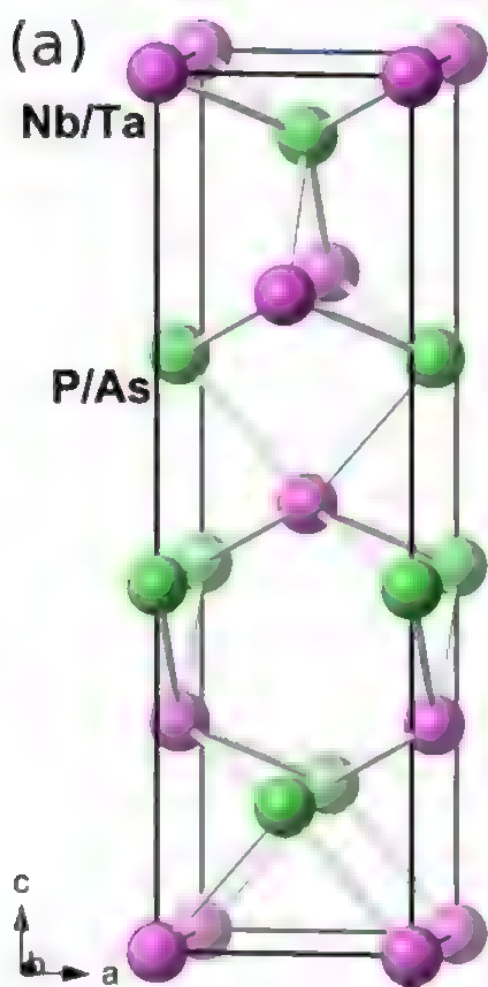
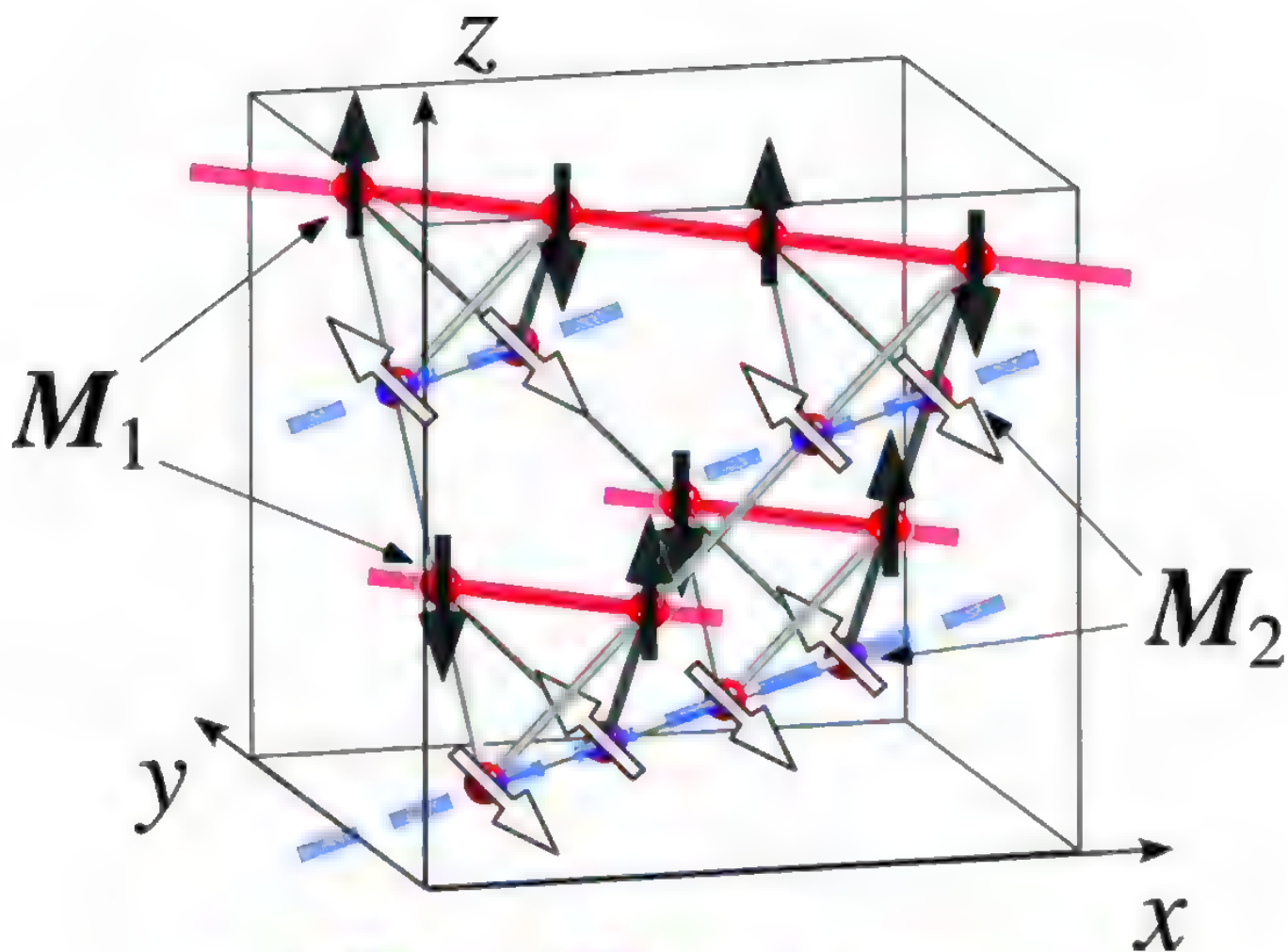


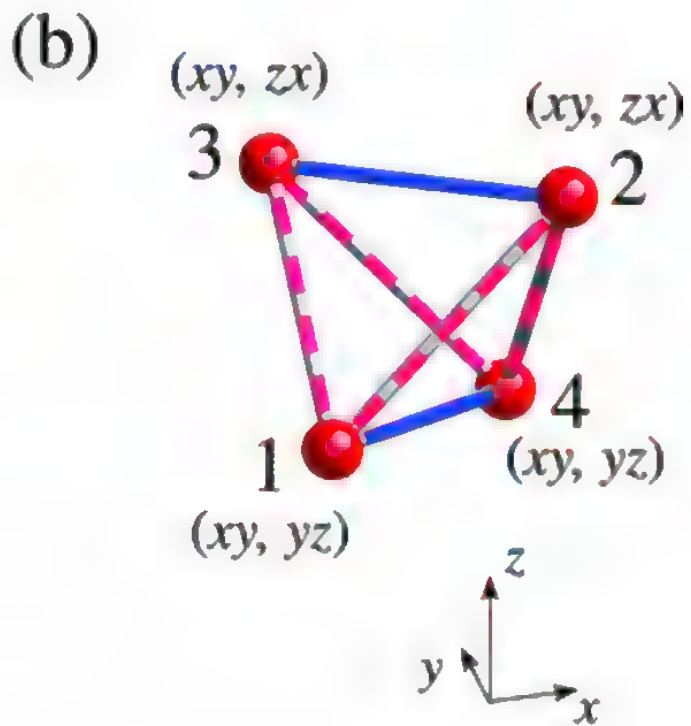
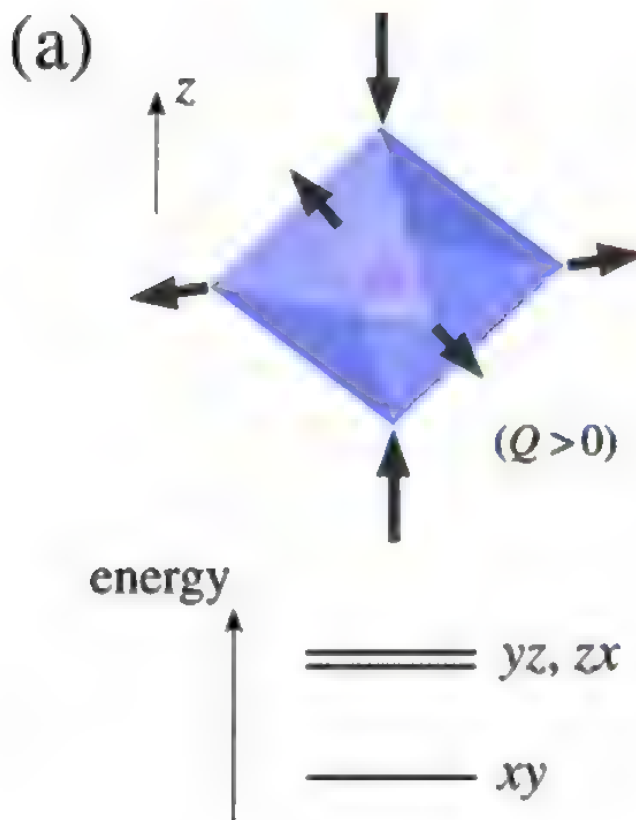
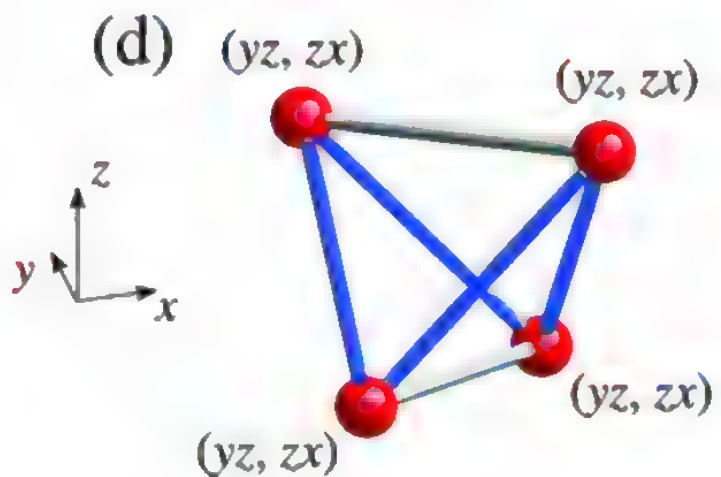
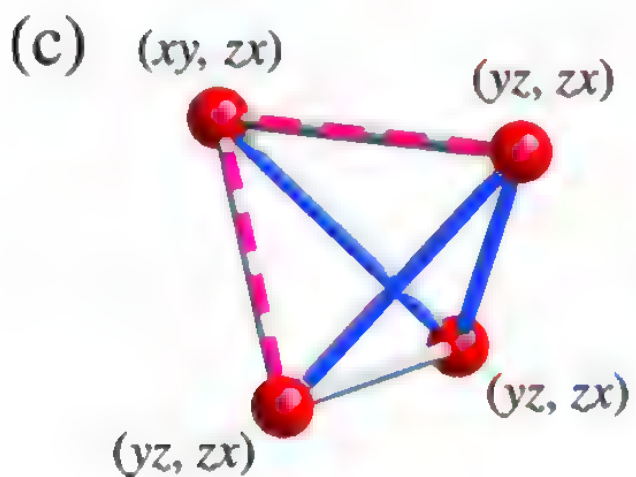
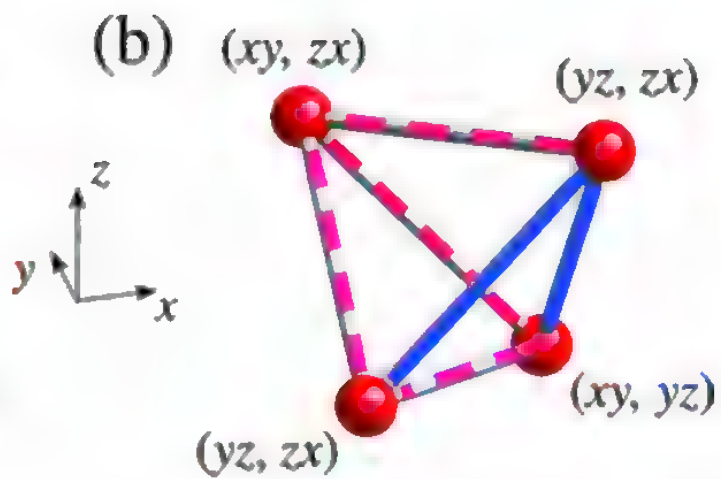
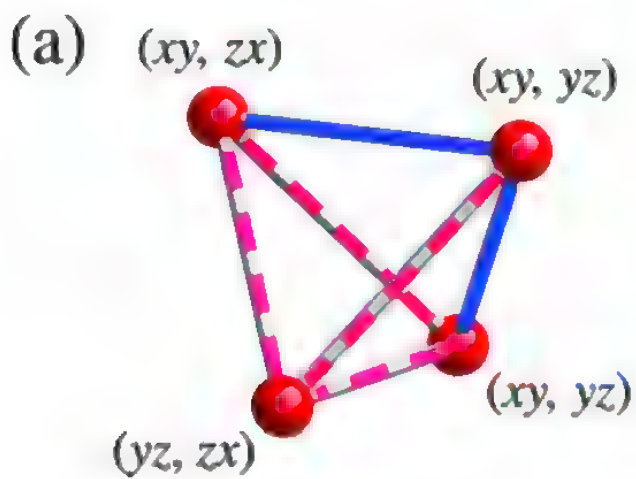
Mass (MeV)  
1000

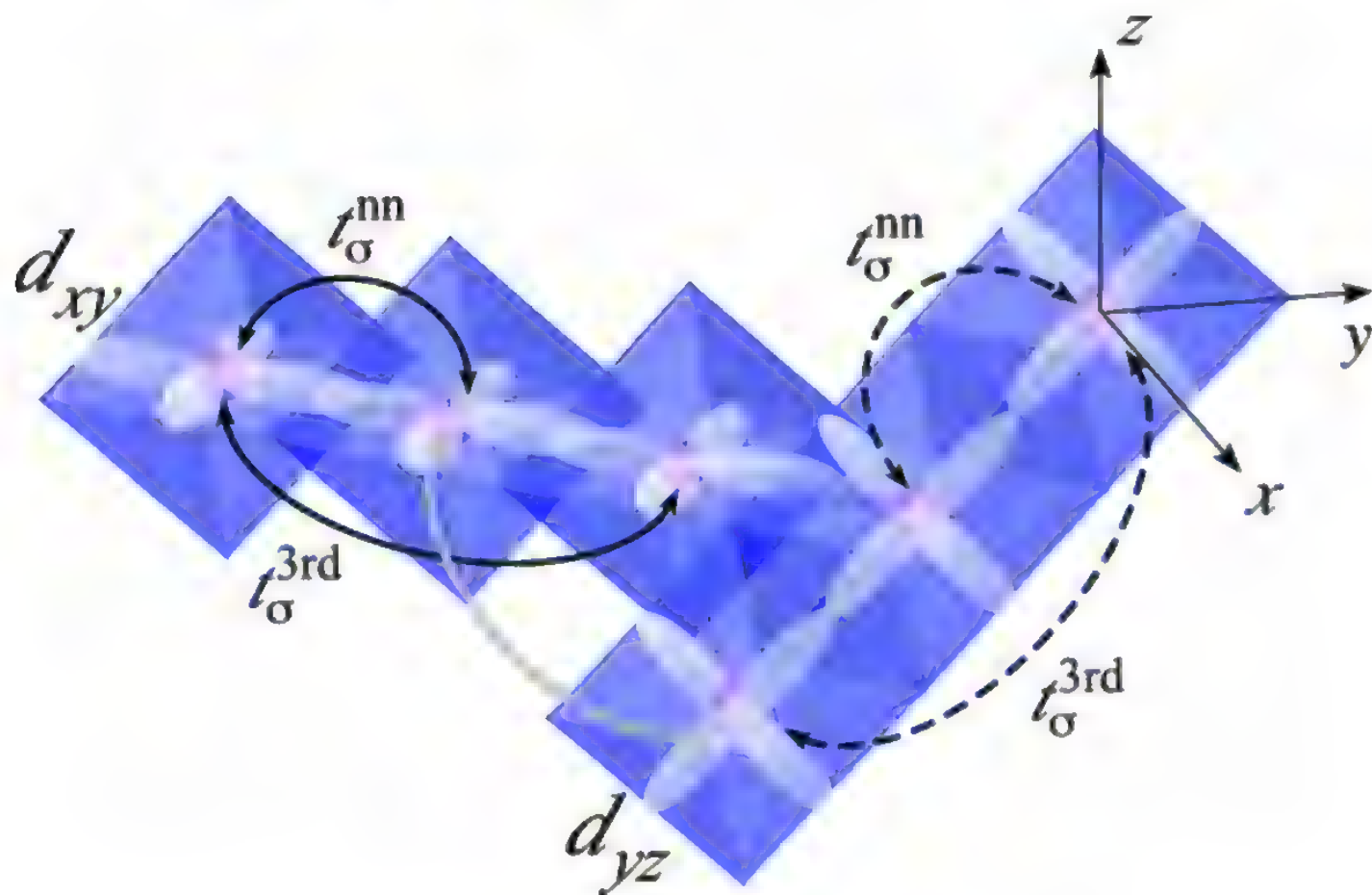
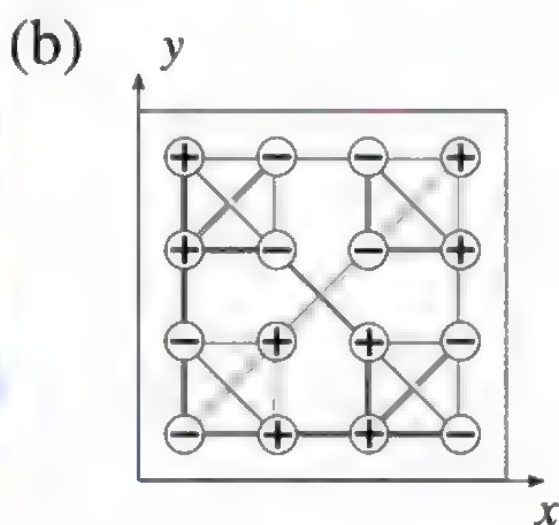
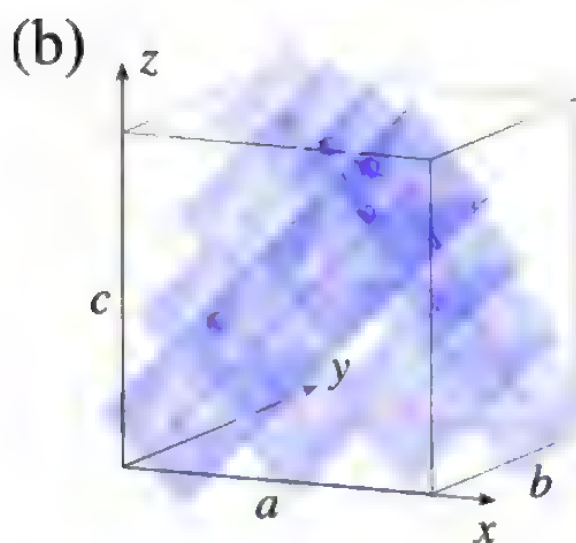
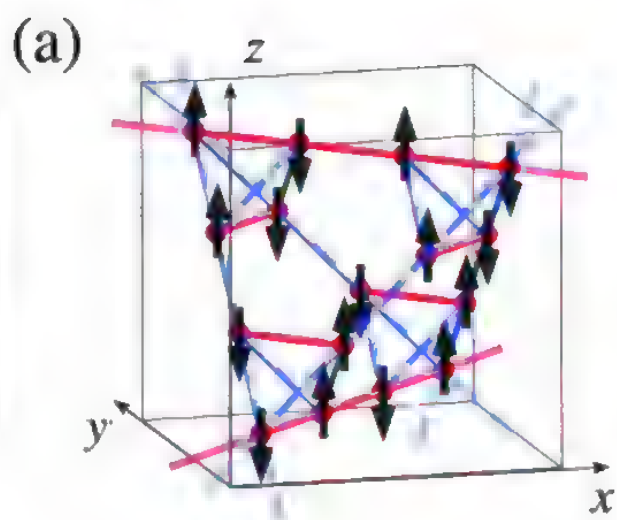
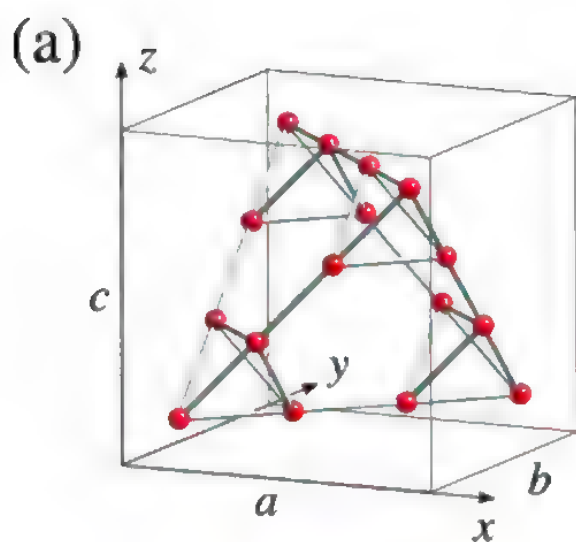


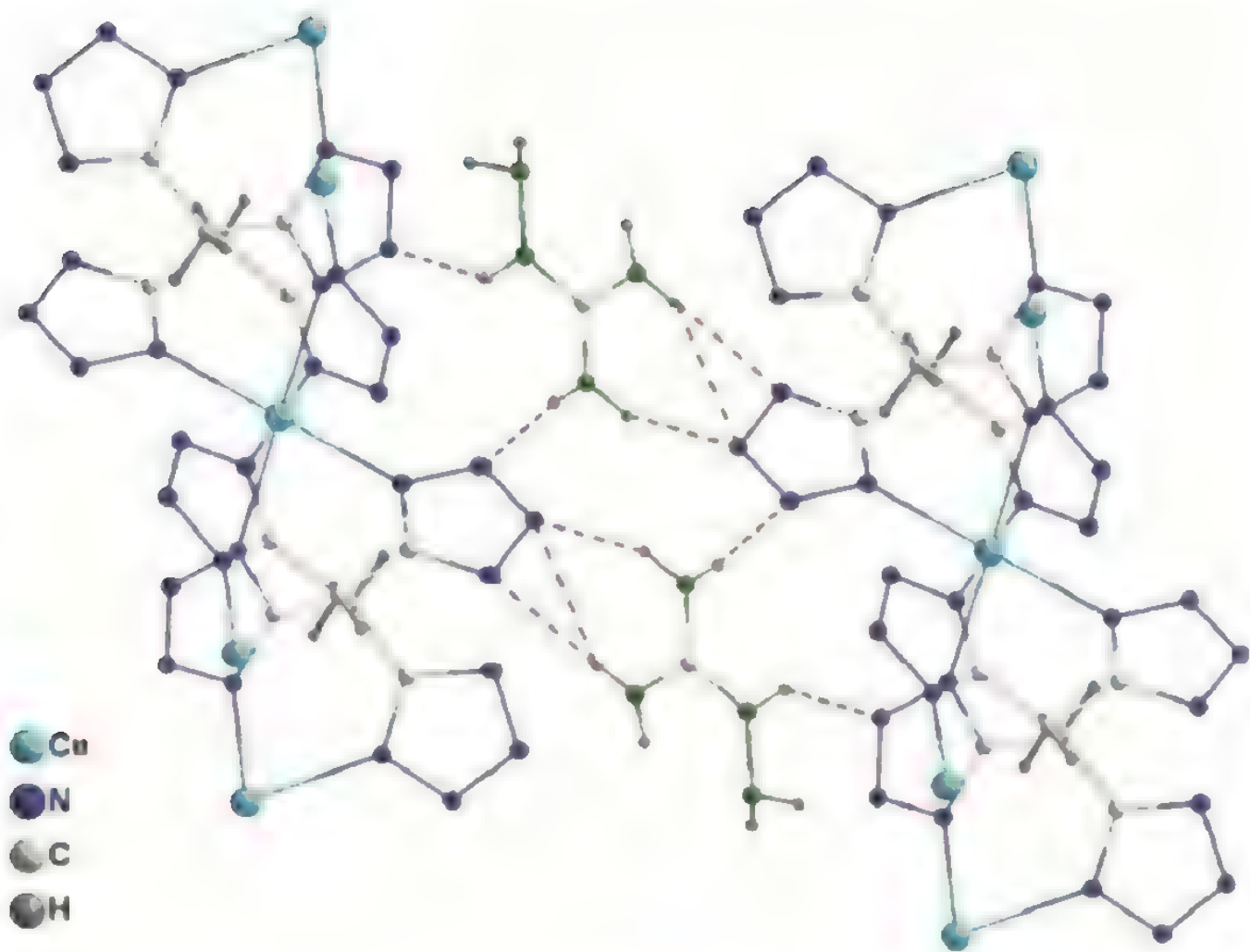




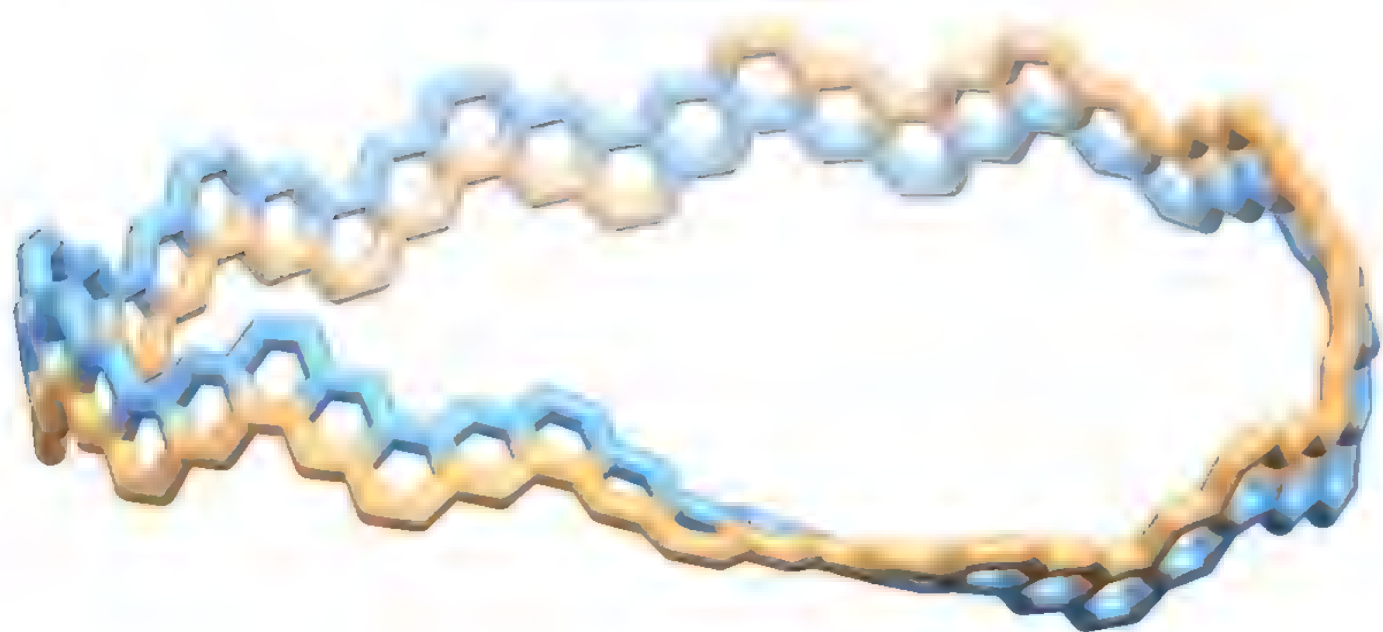




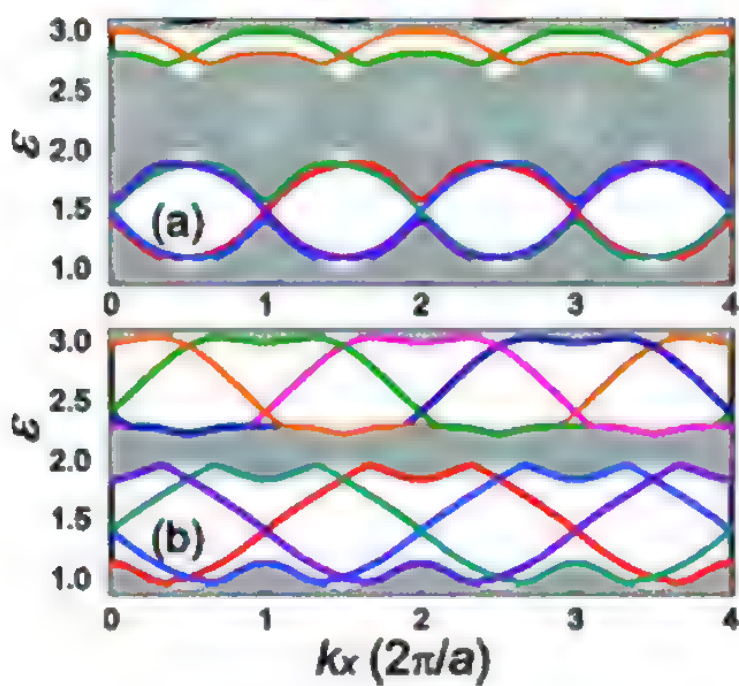
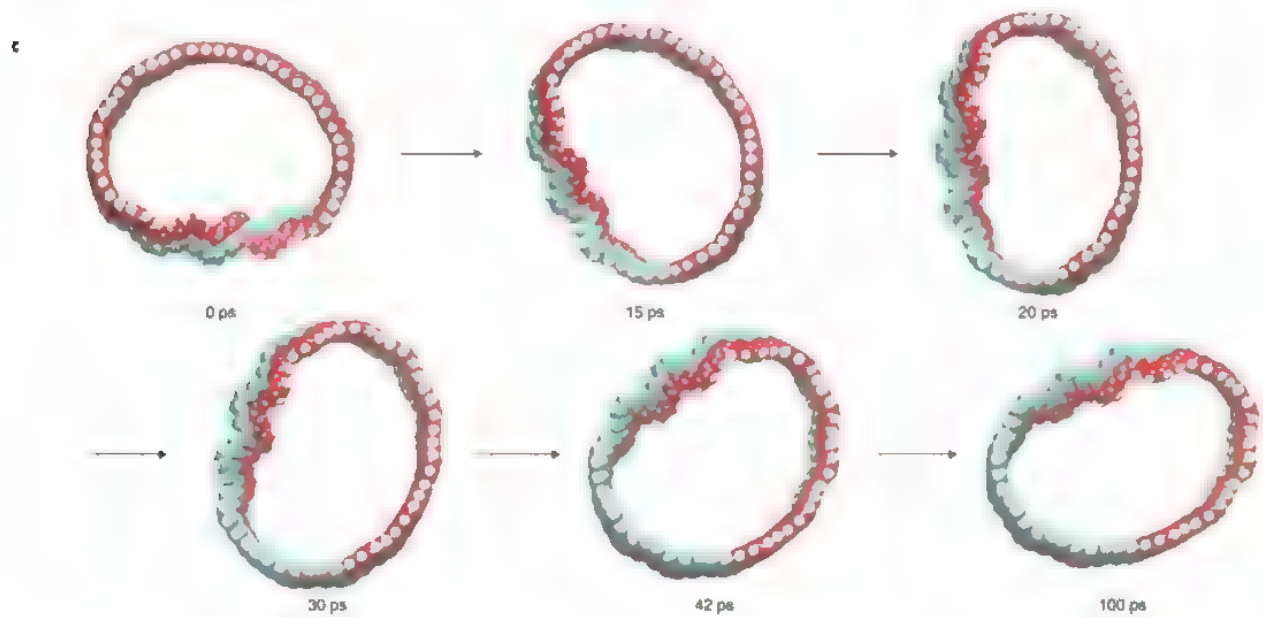
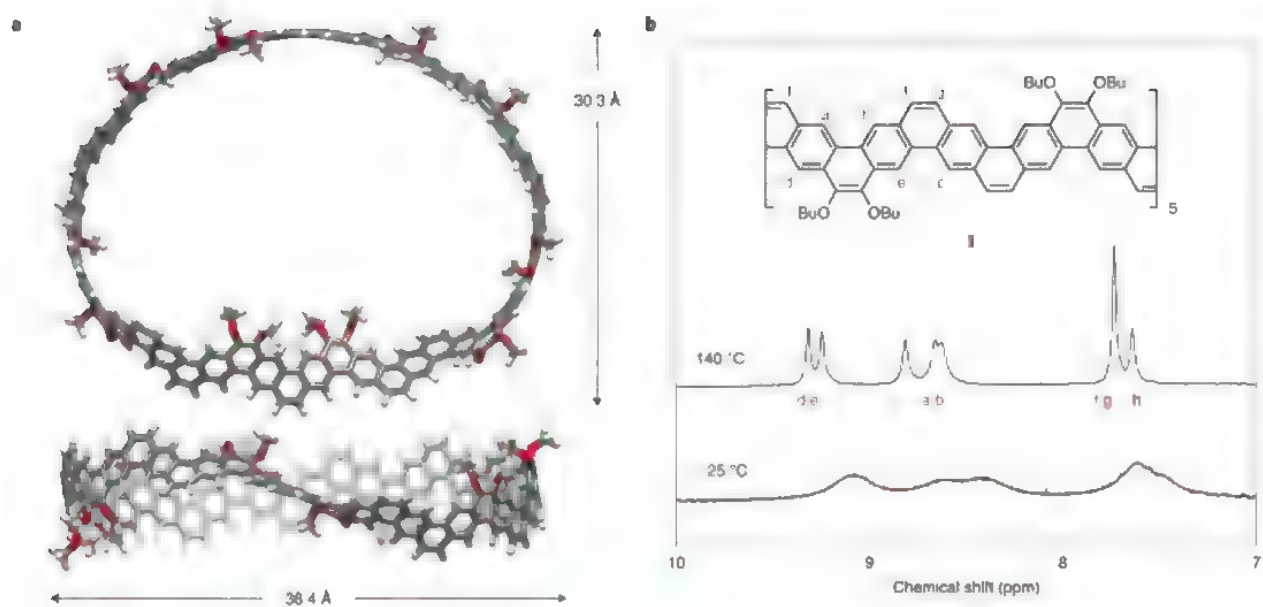




Möbius carbon nanobelt





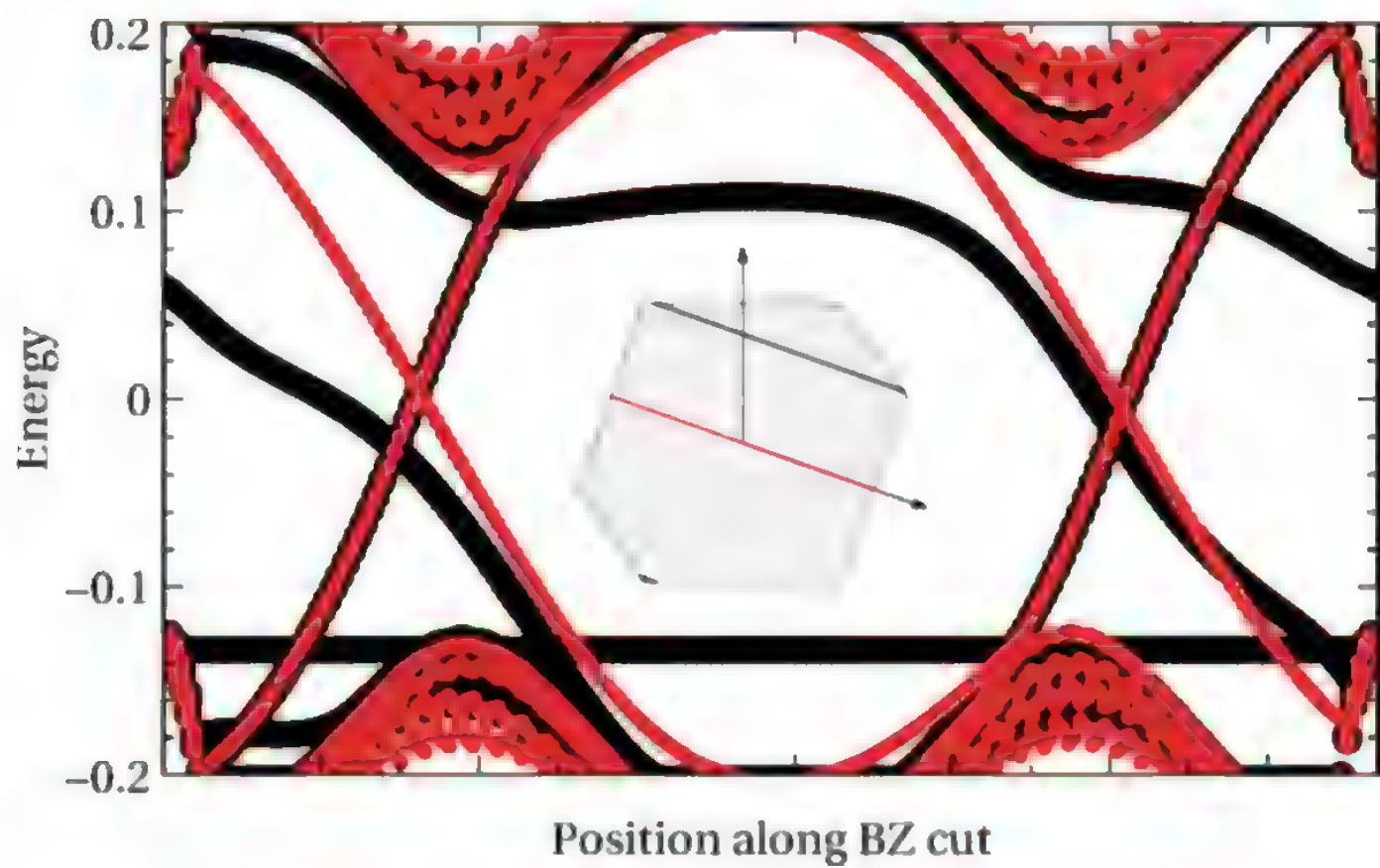
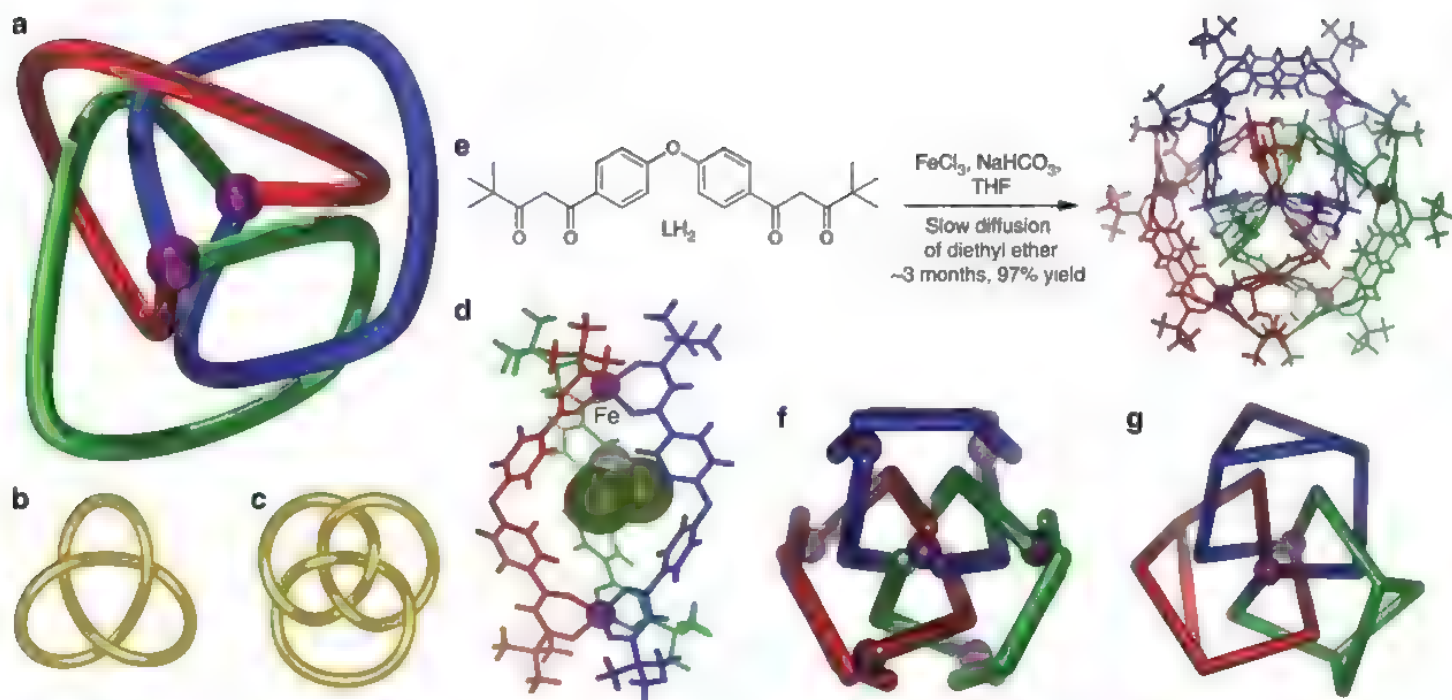


(c)

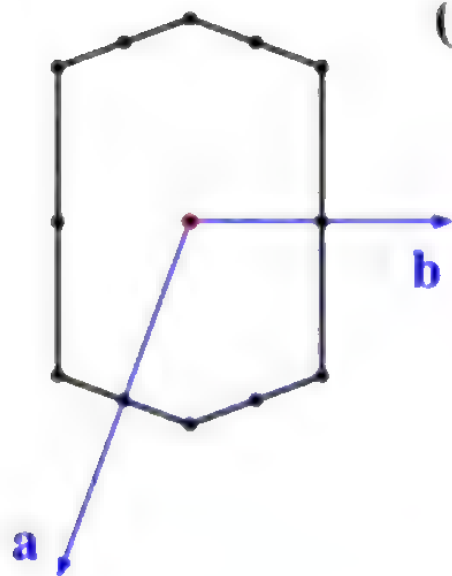
(d)

(e)

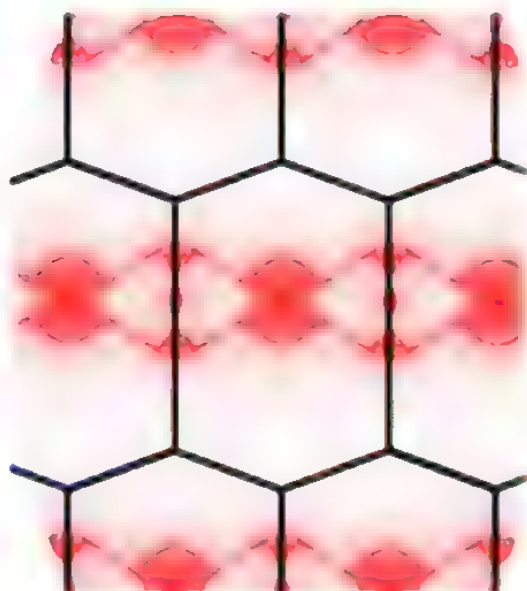




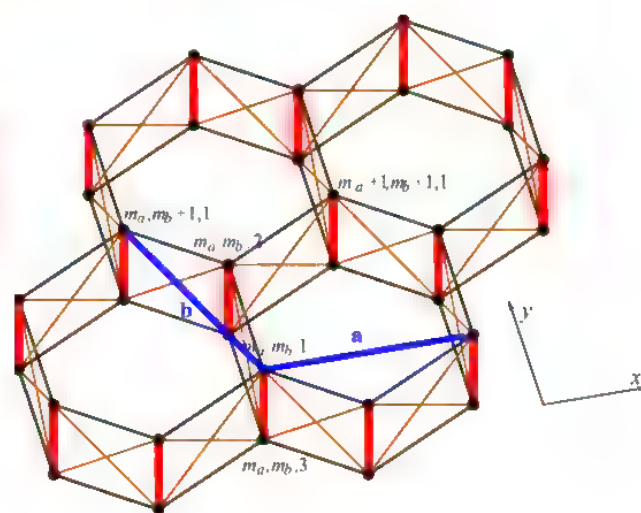
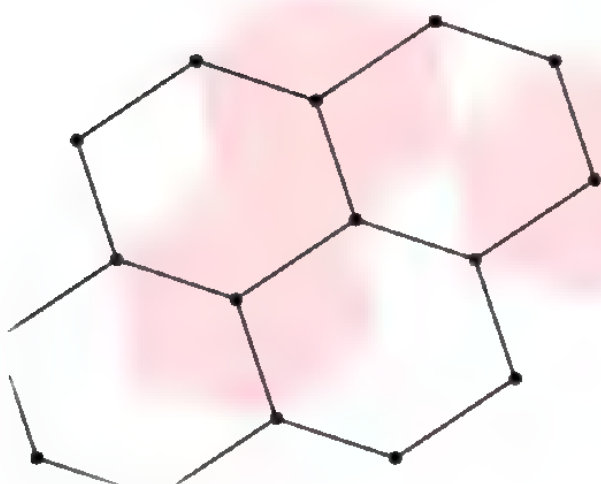
a)

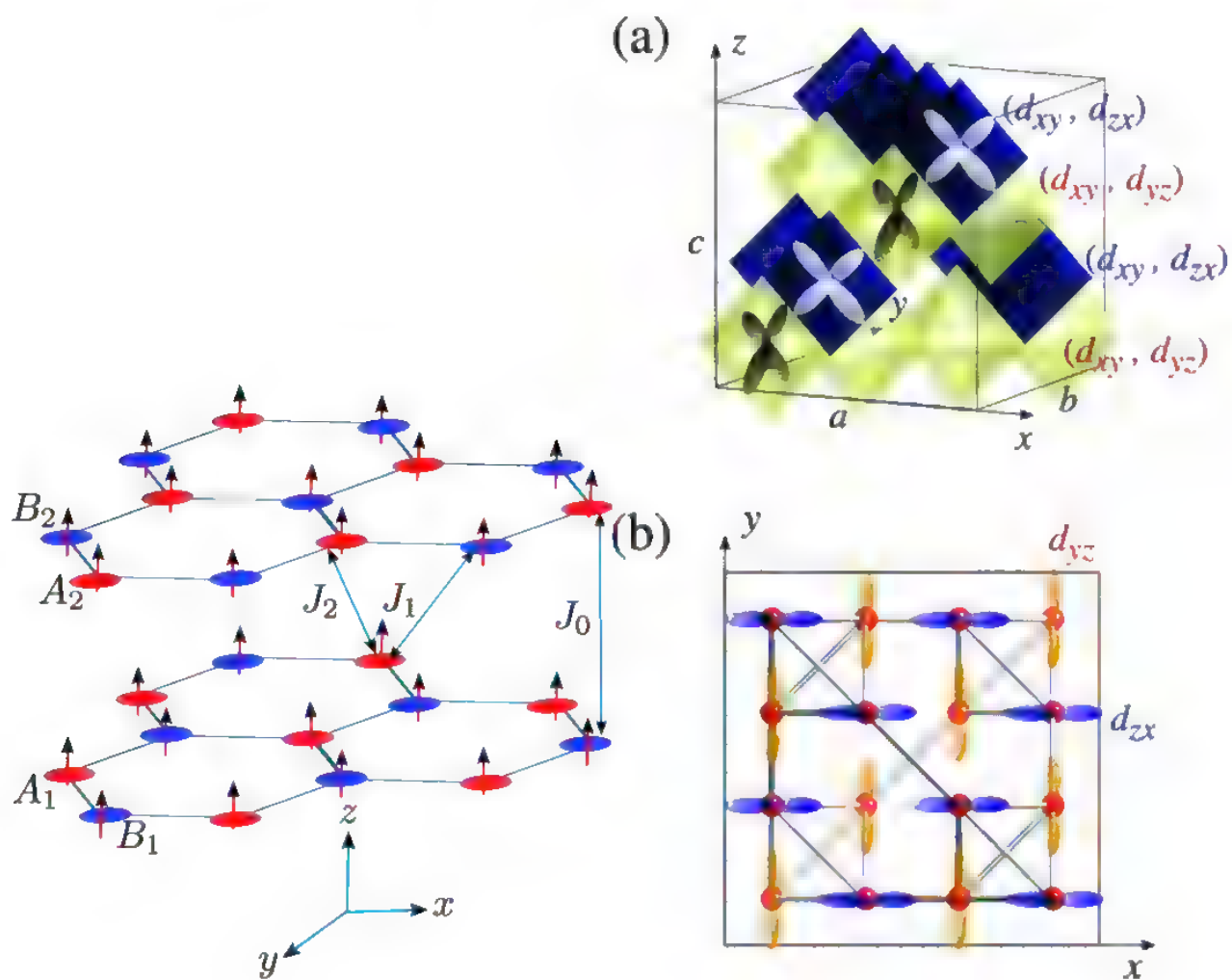
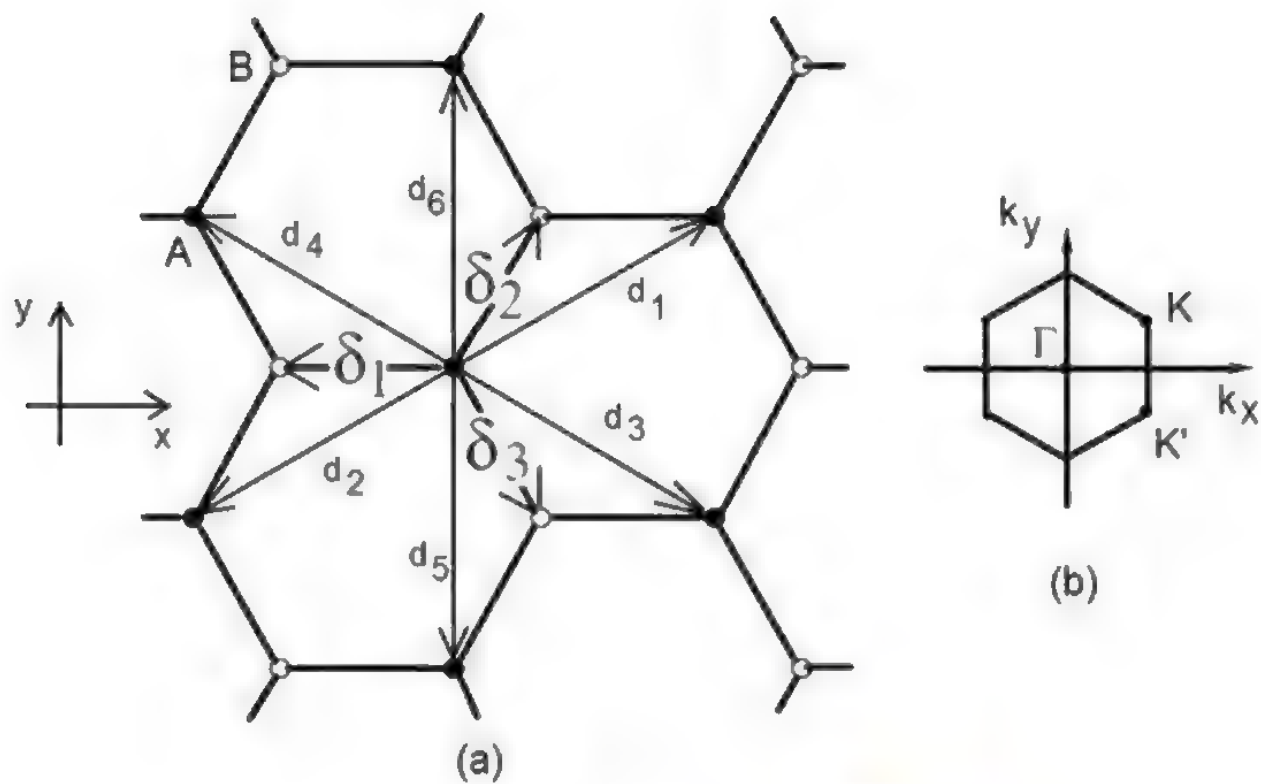


(b)

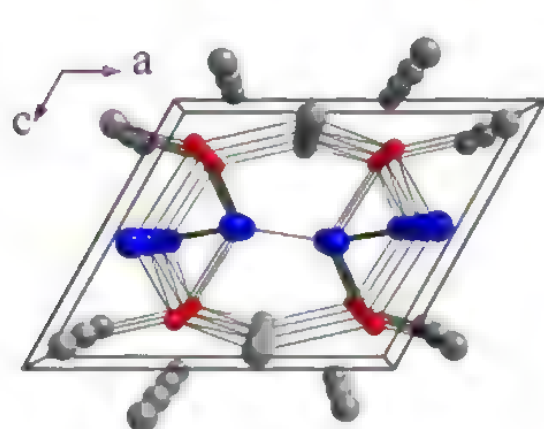
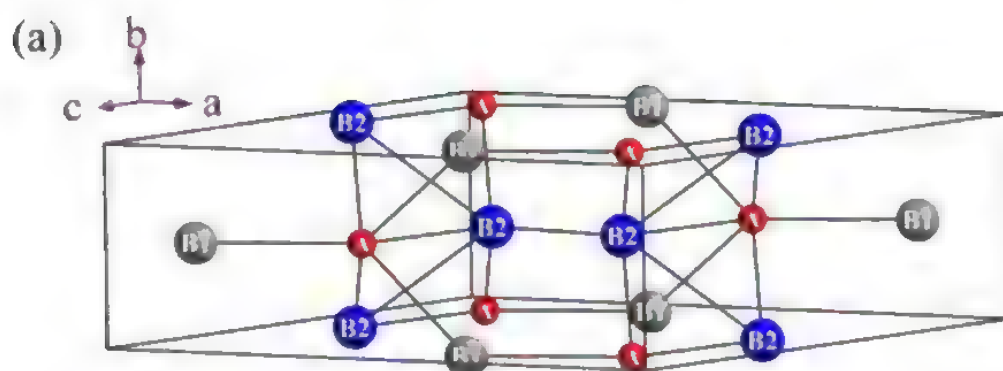


c)

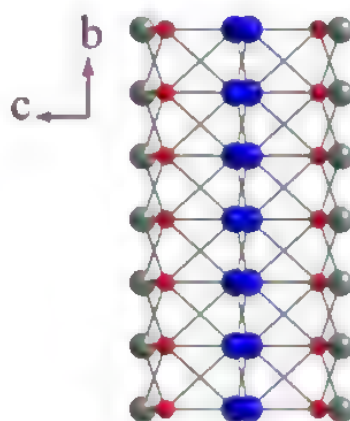




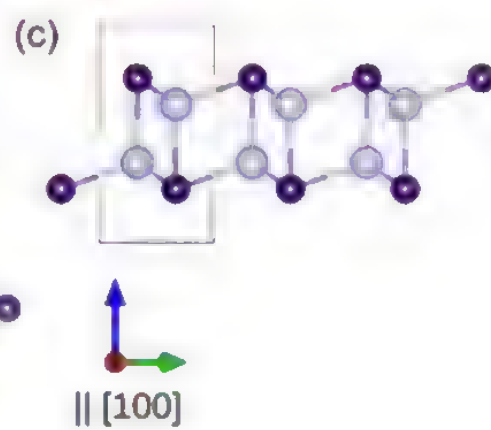
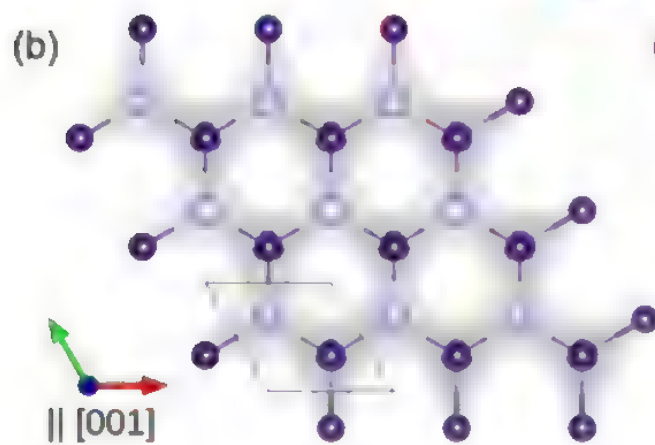
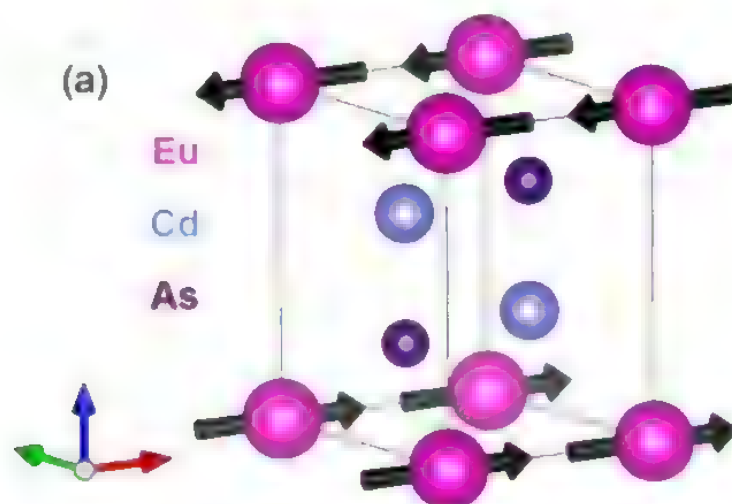




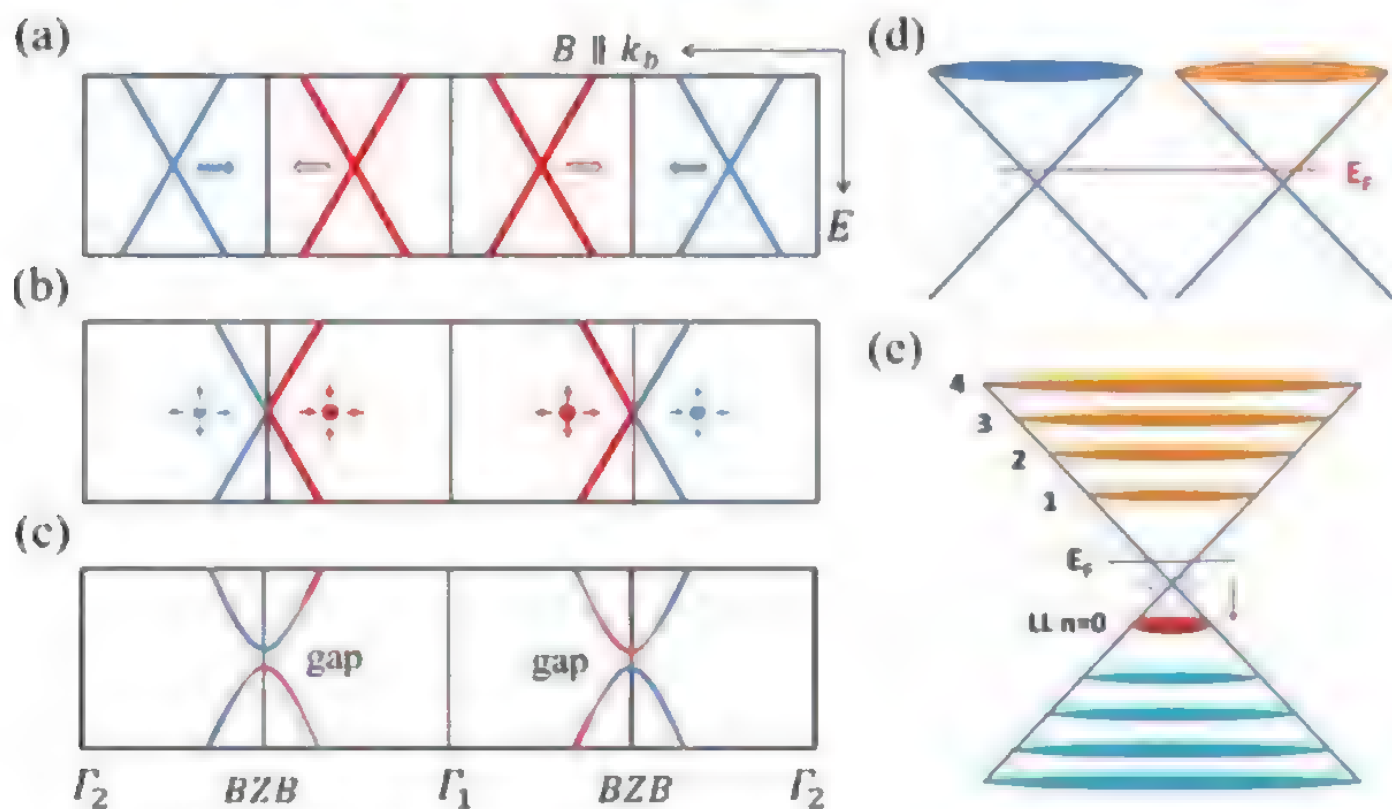
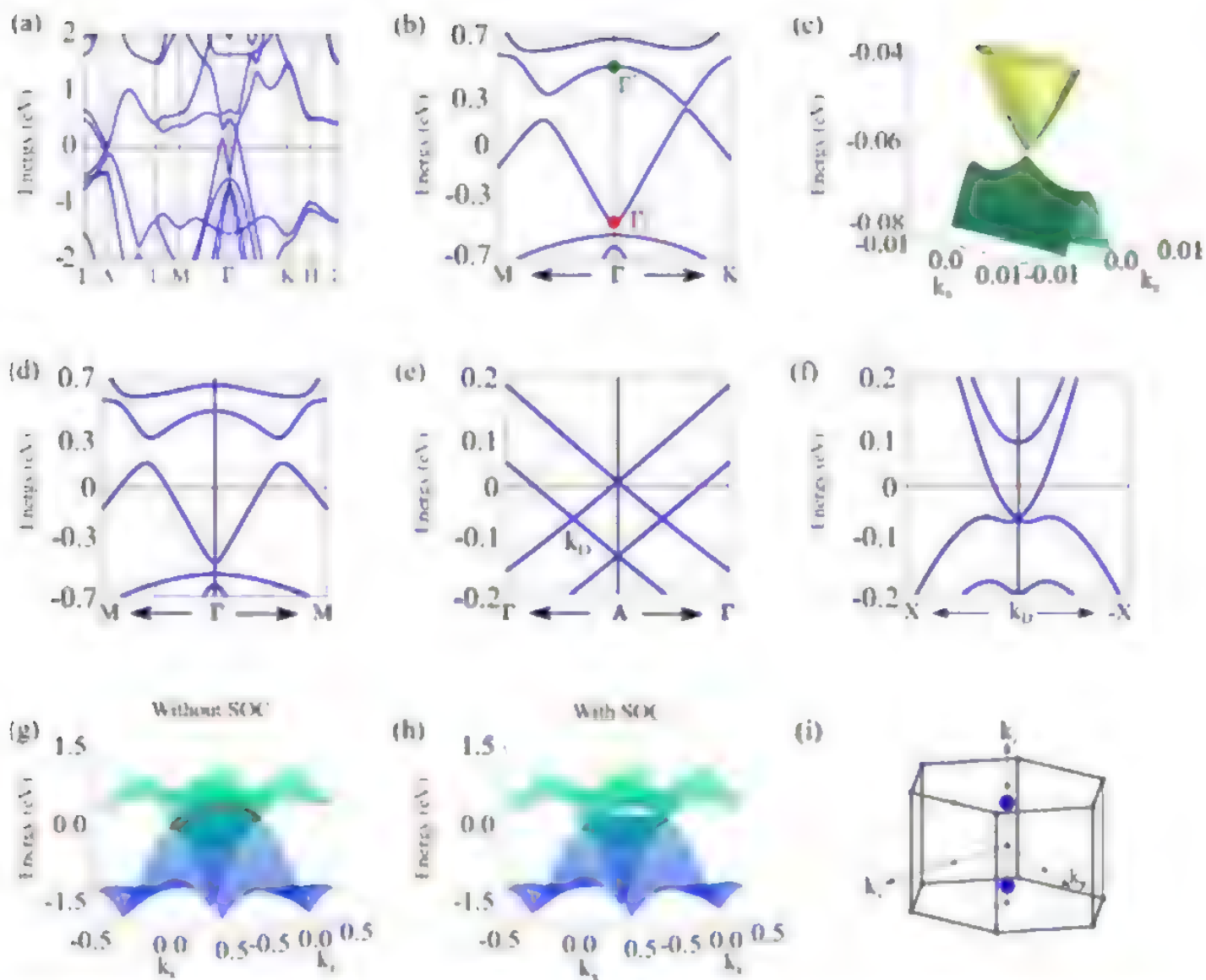
(b)

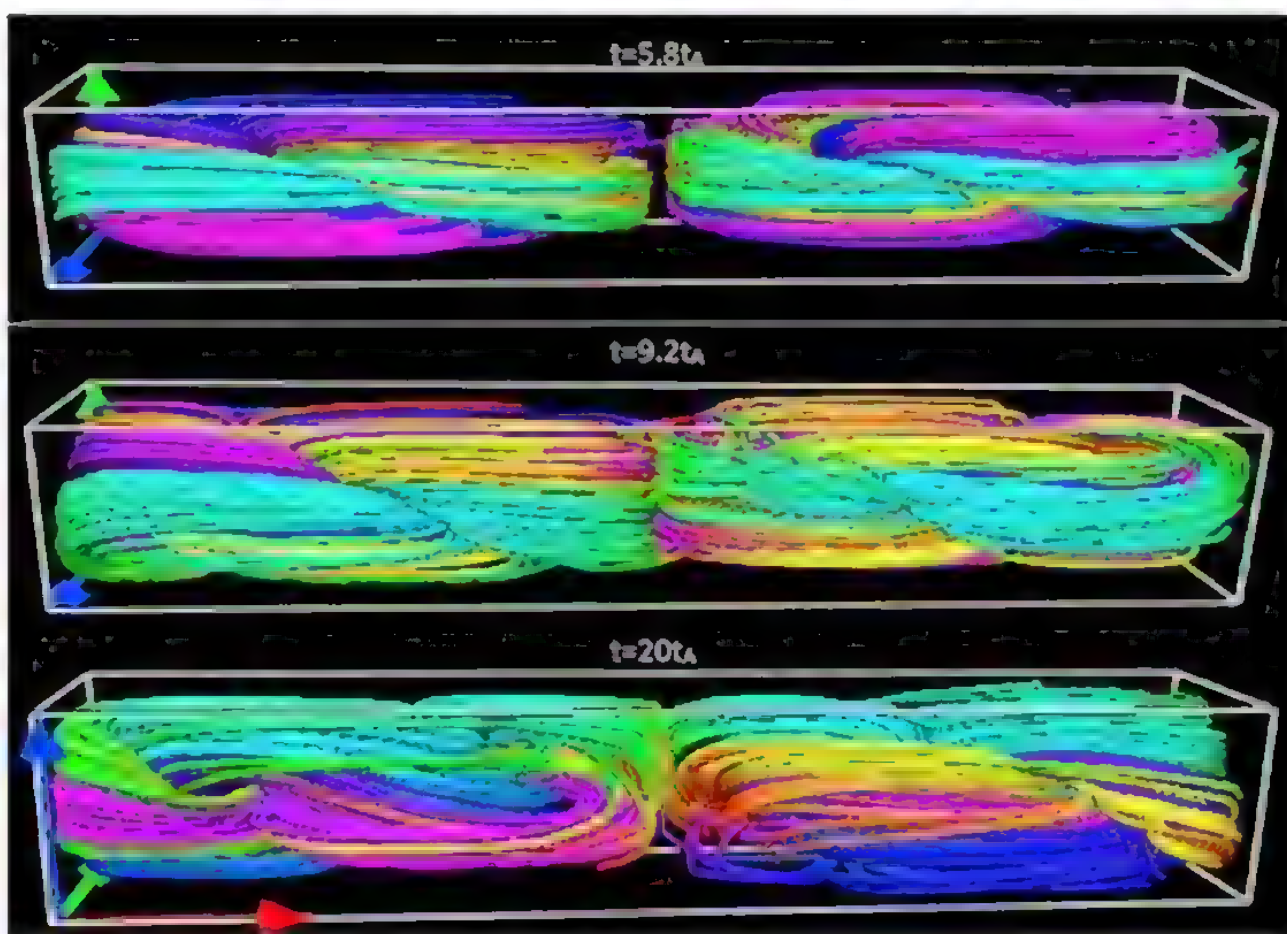
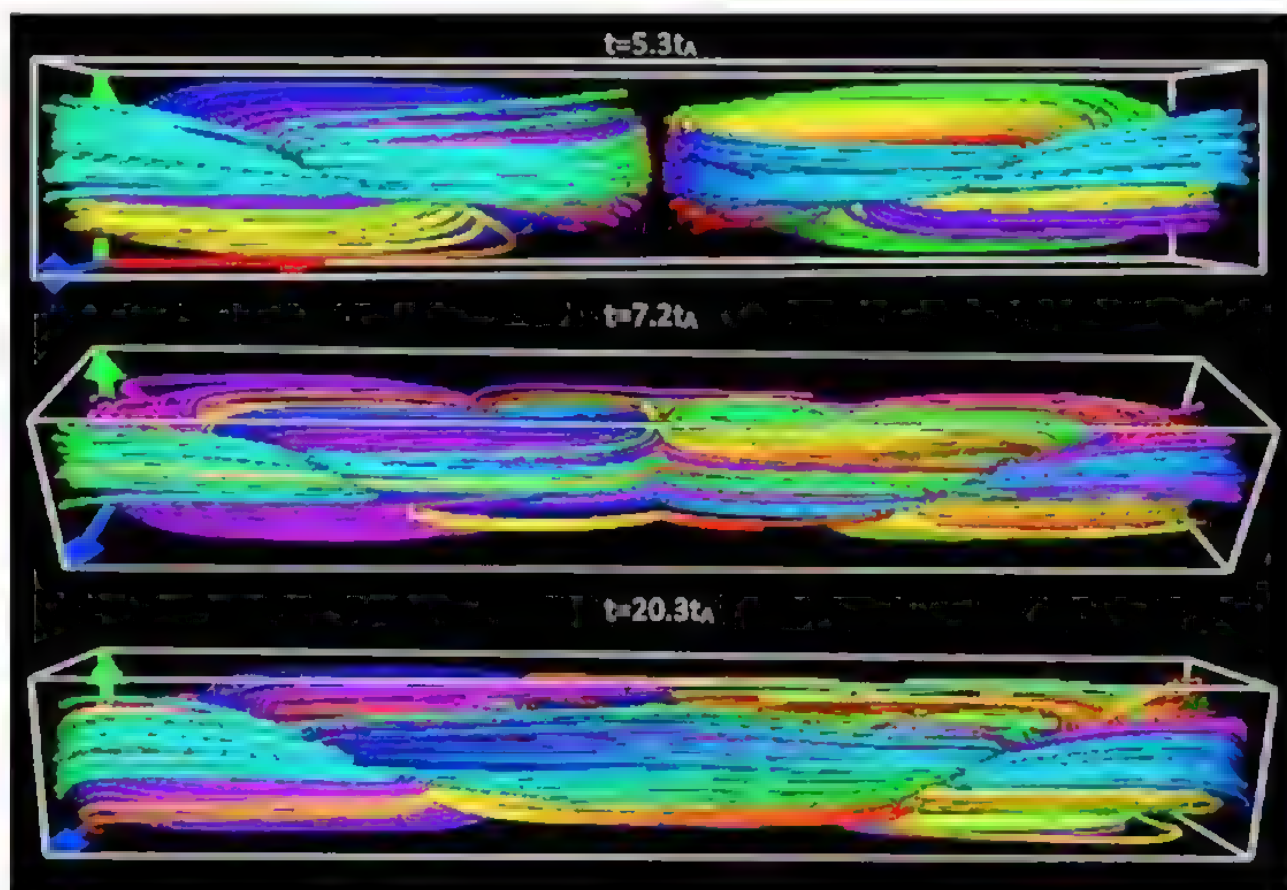


(c)



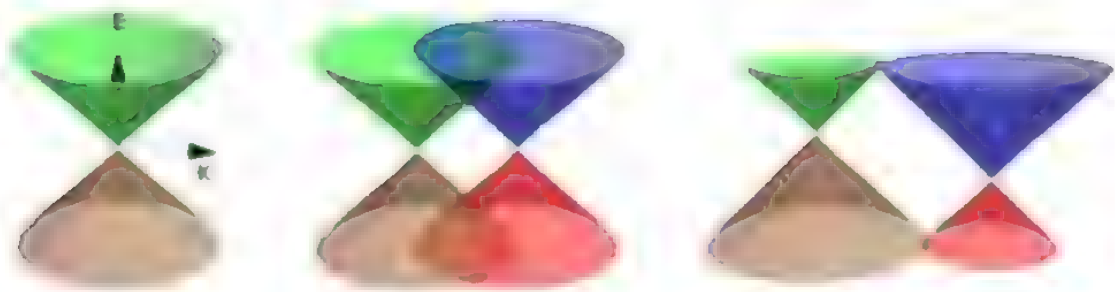




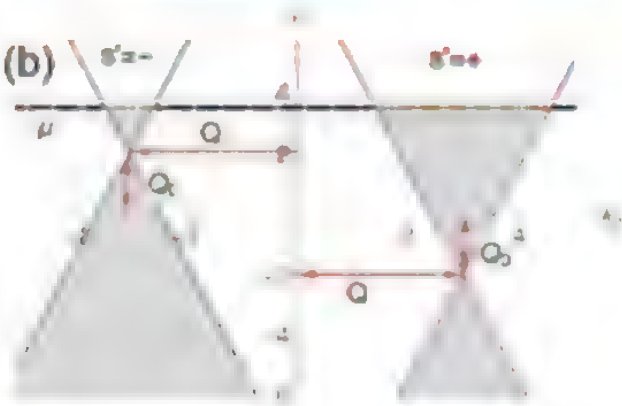




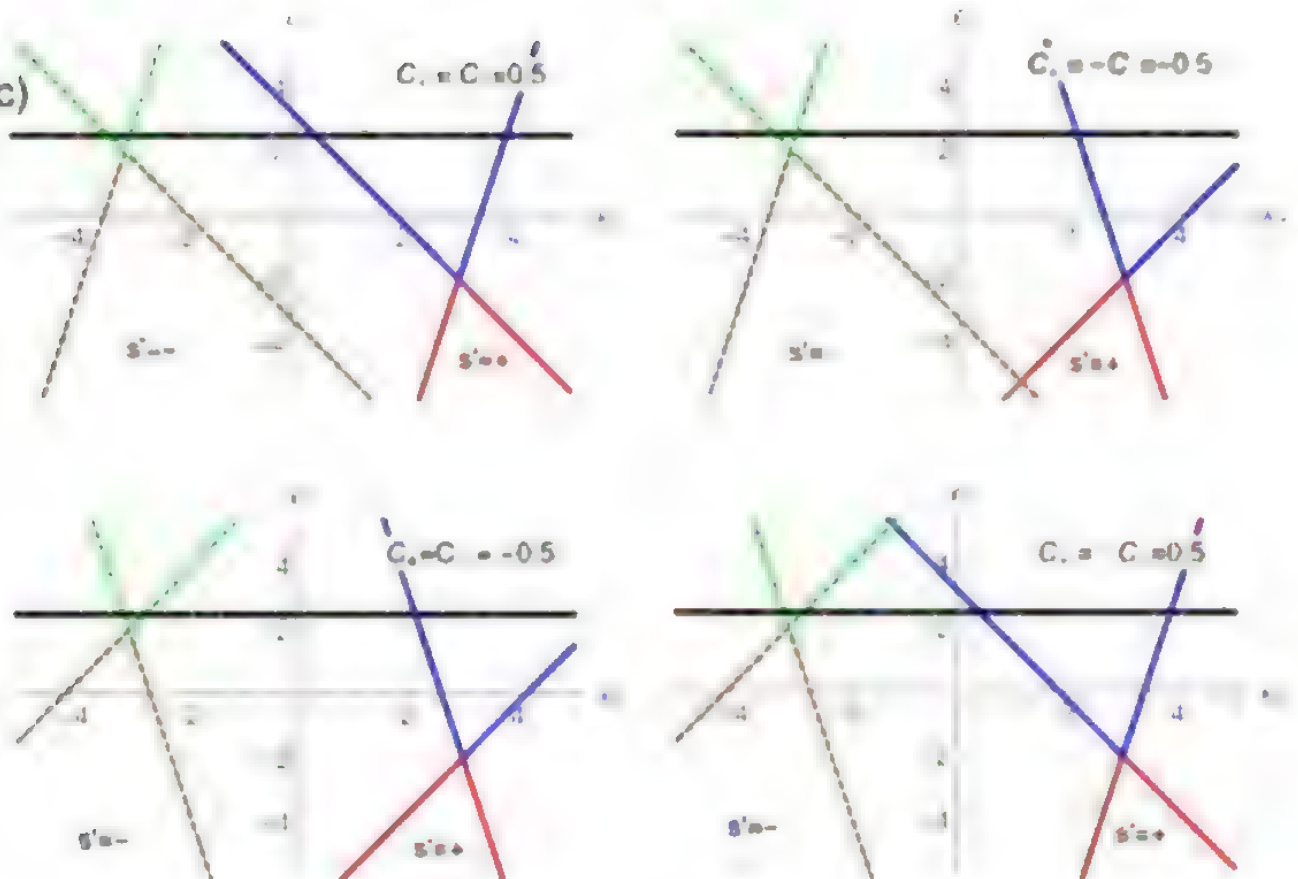
(a)

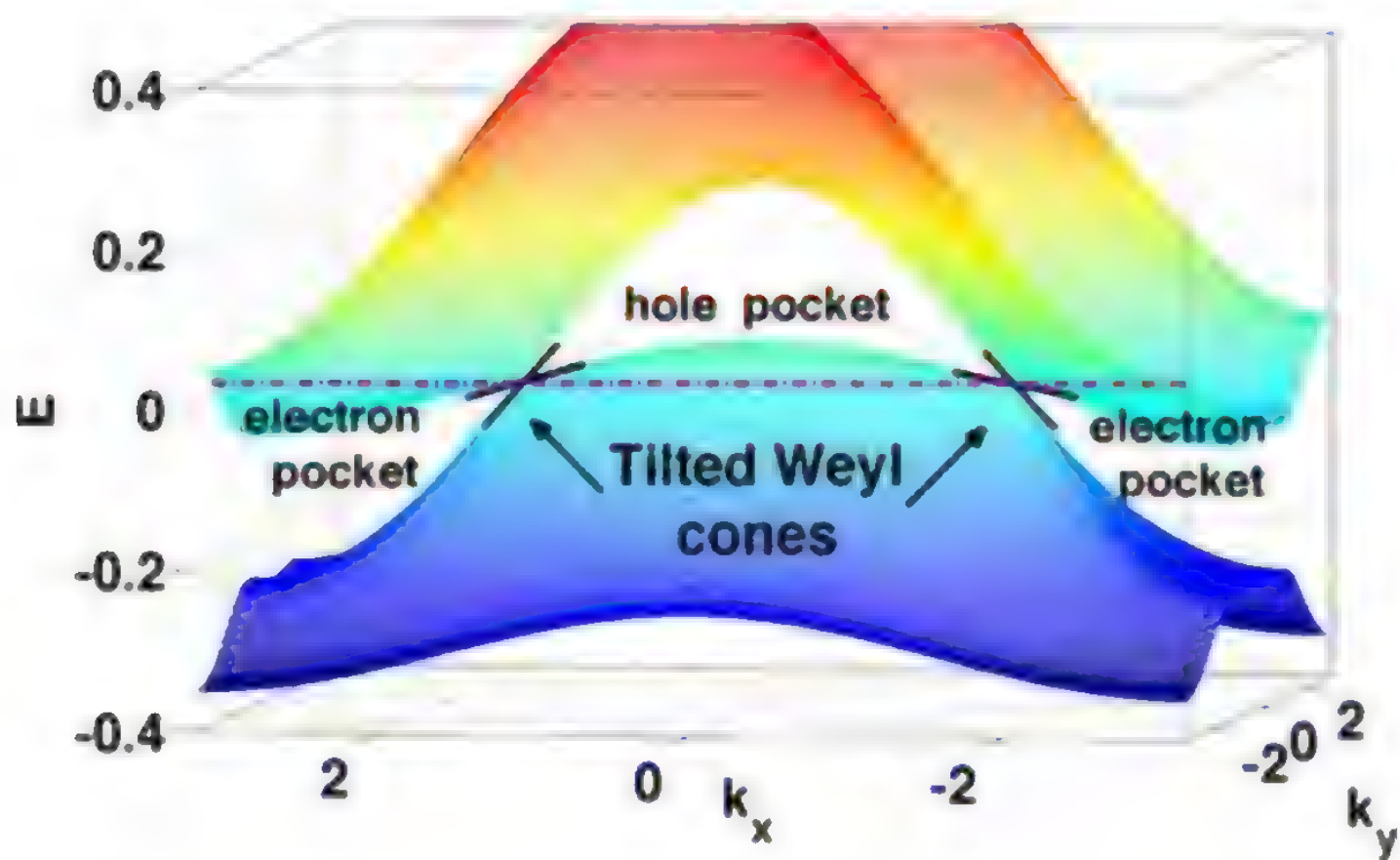
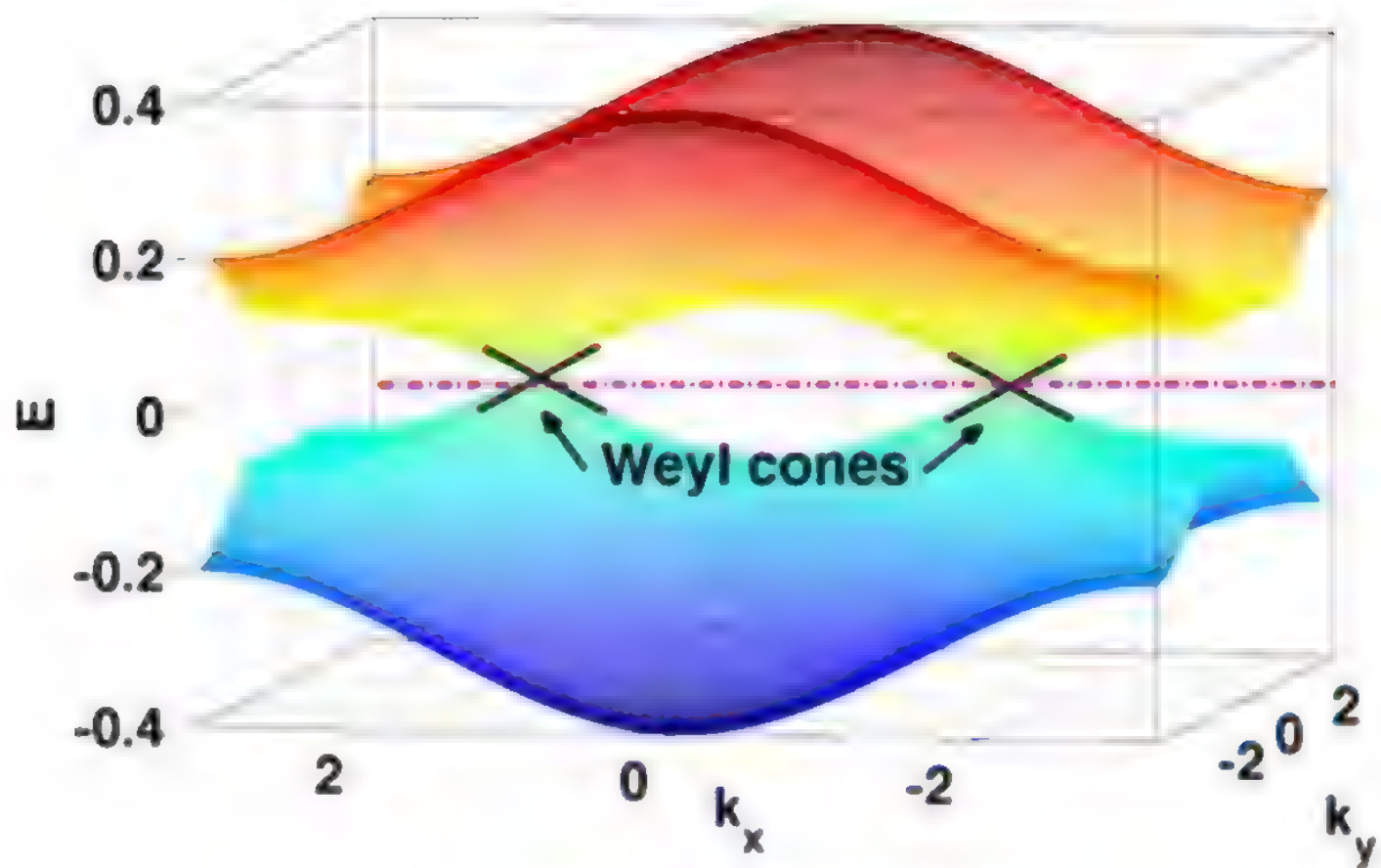


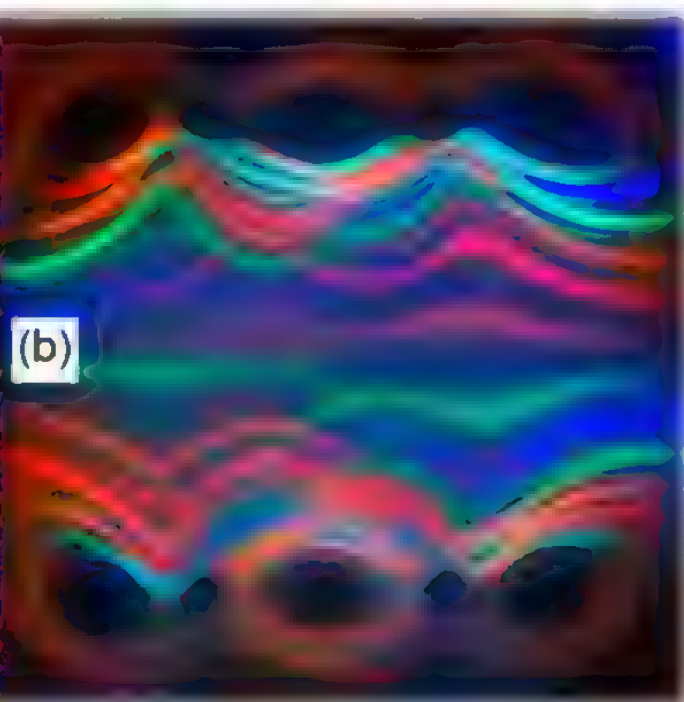
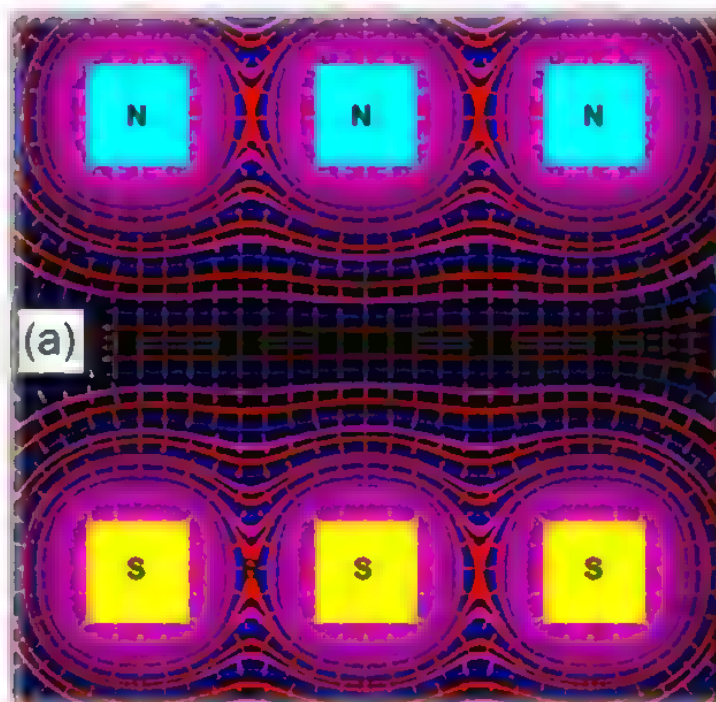
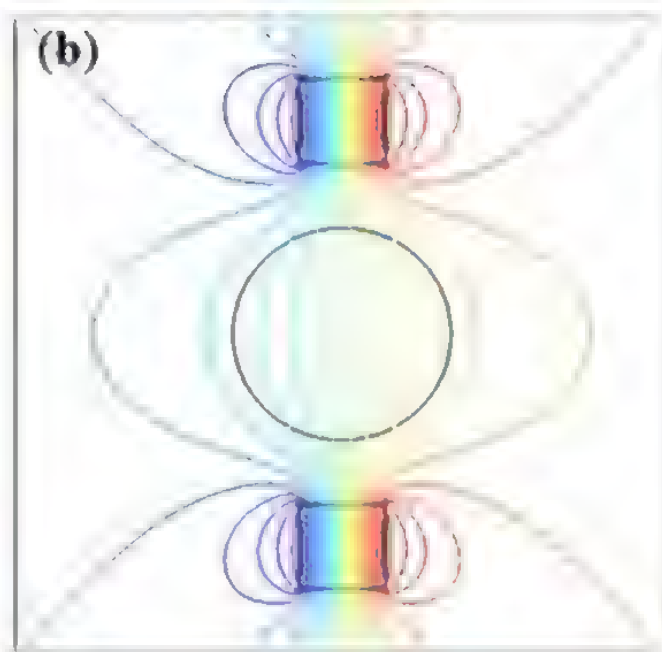
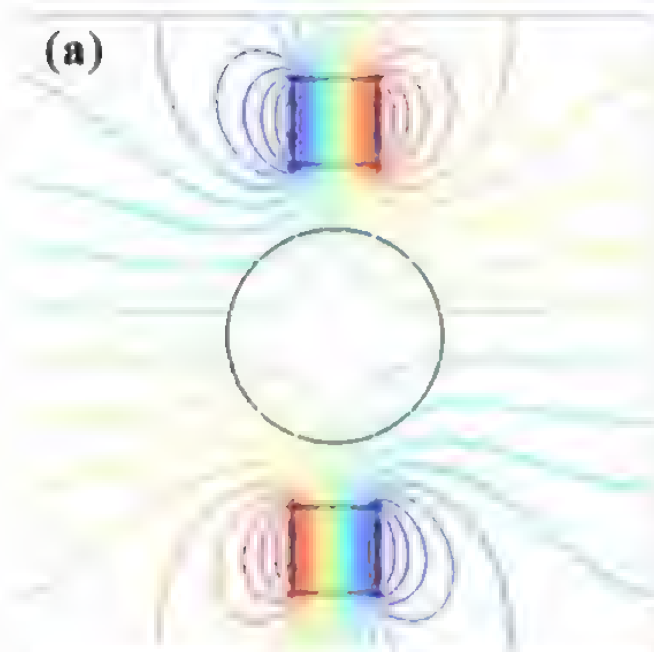
(b)

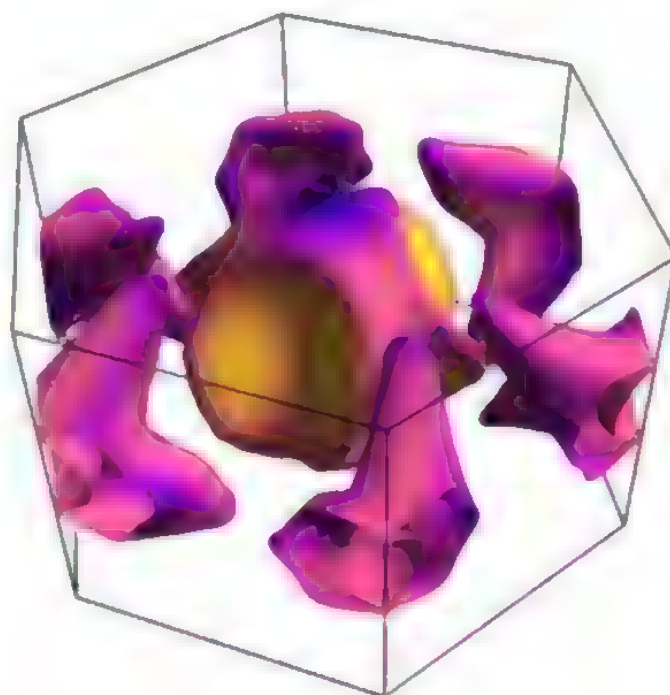
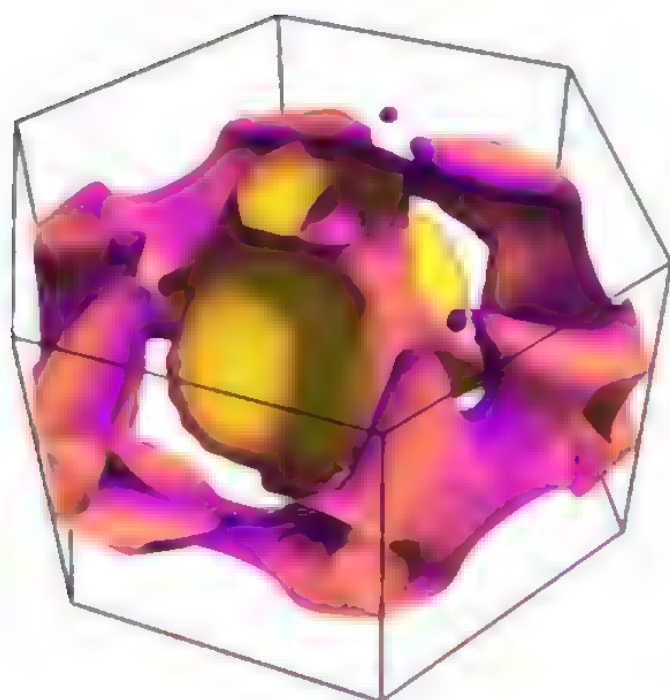
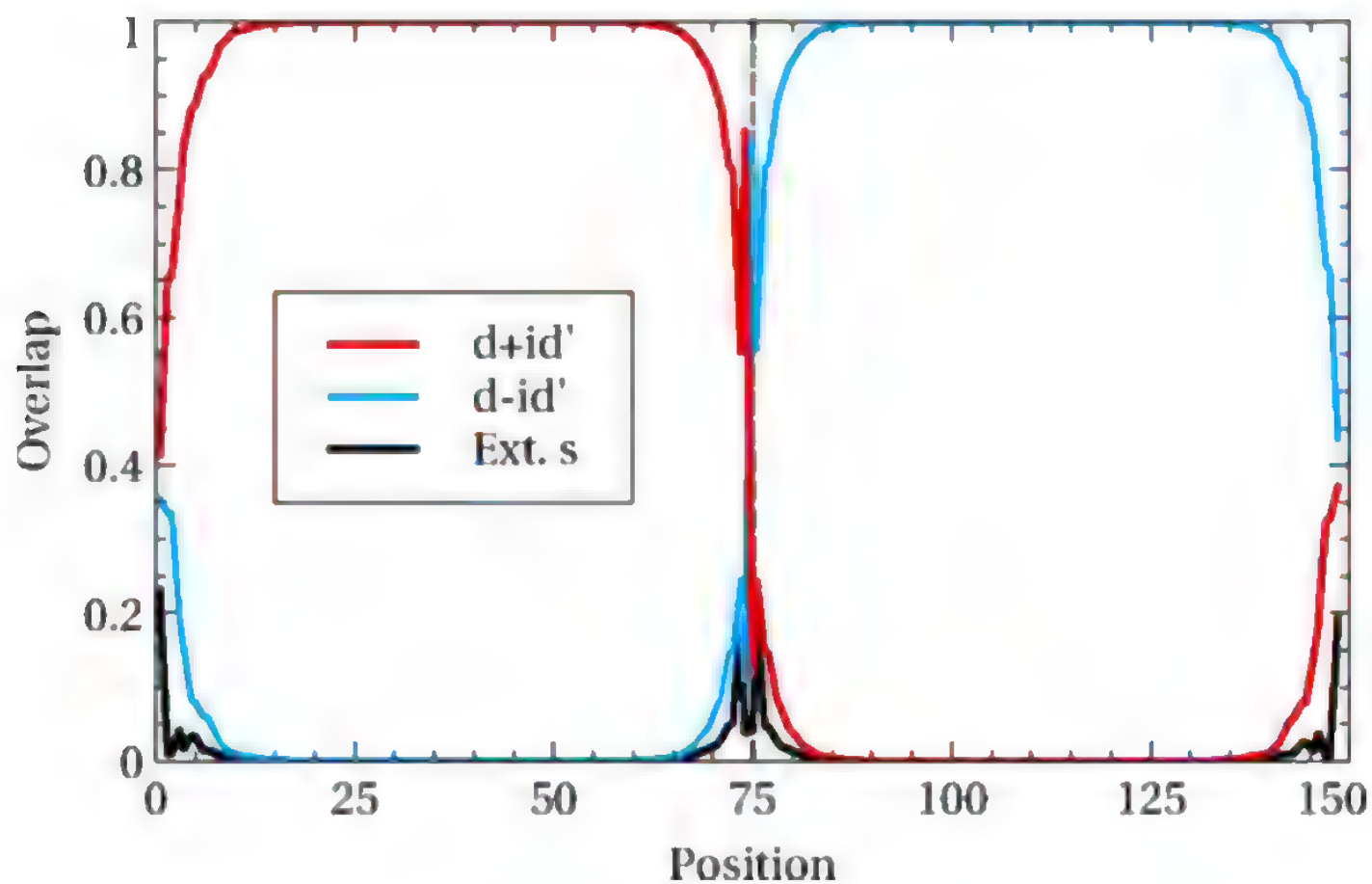


(c)







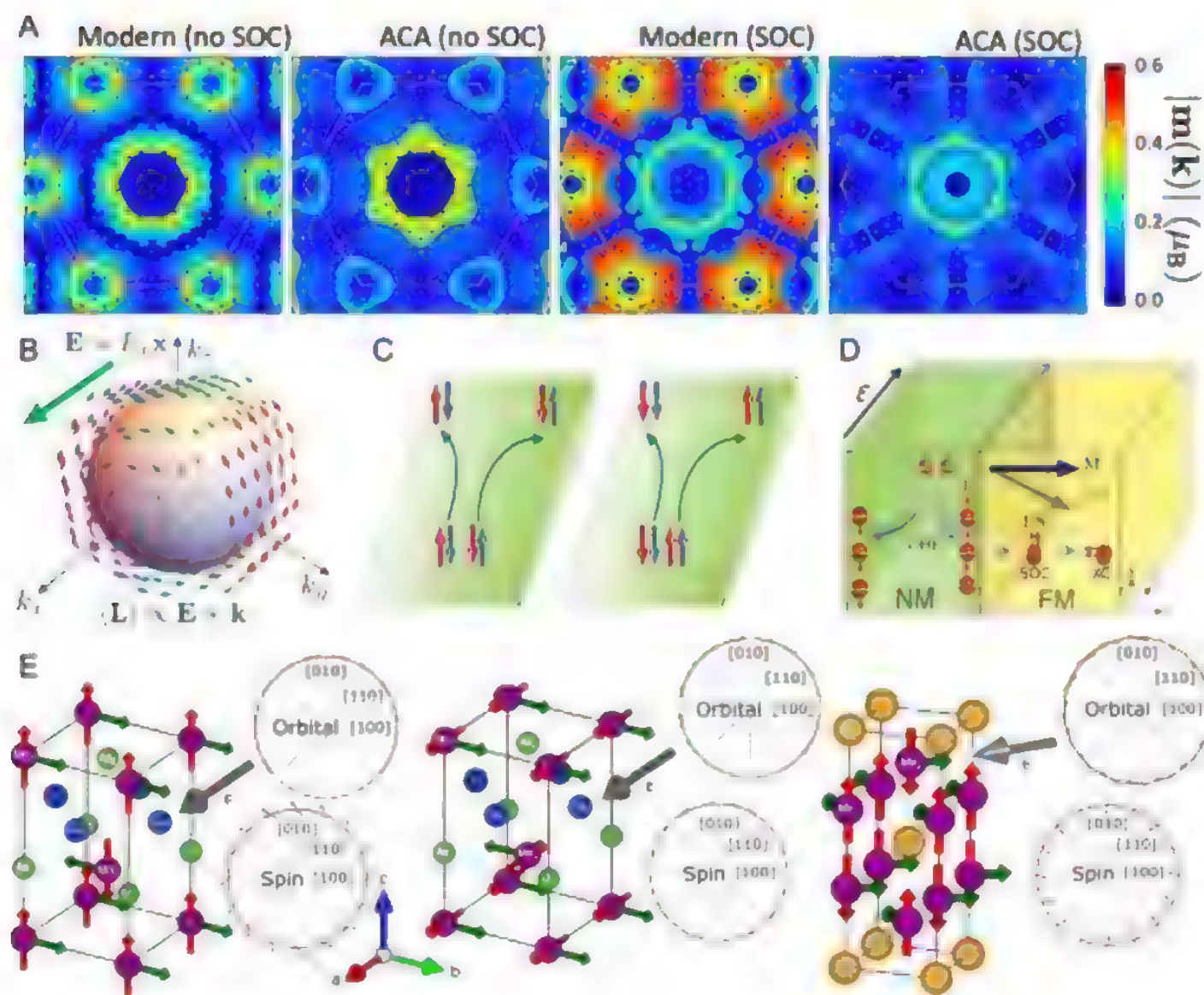
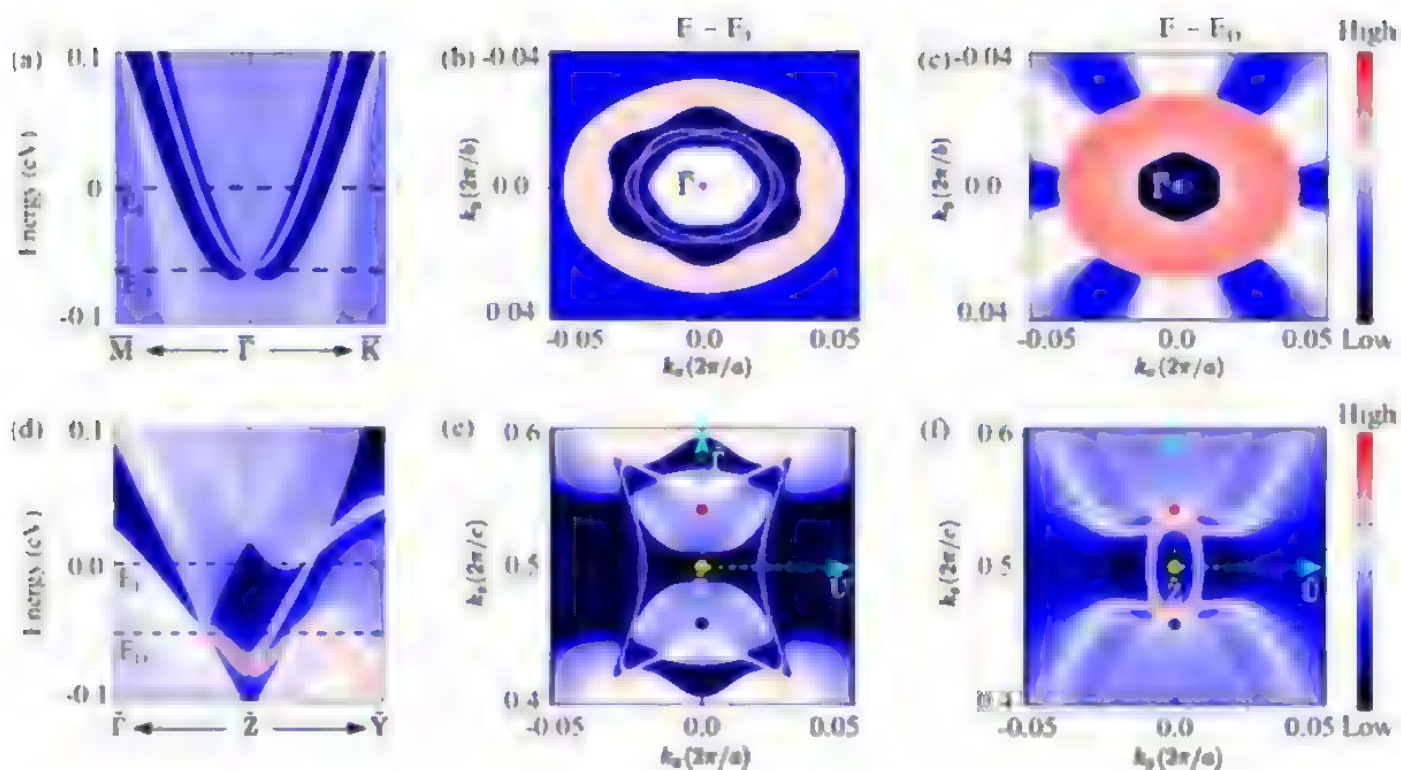


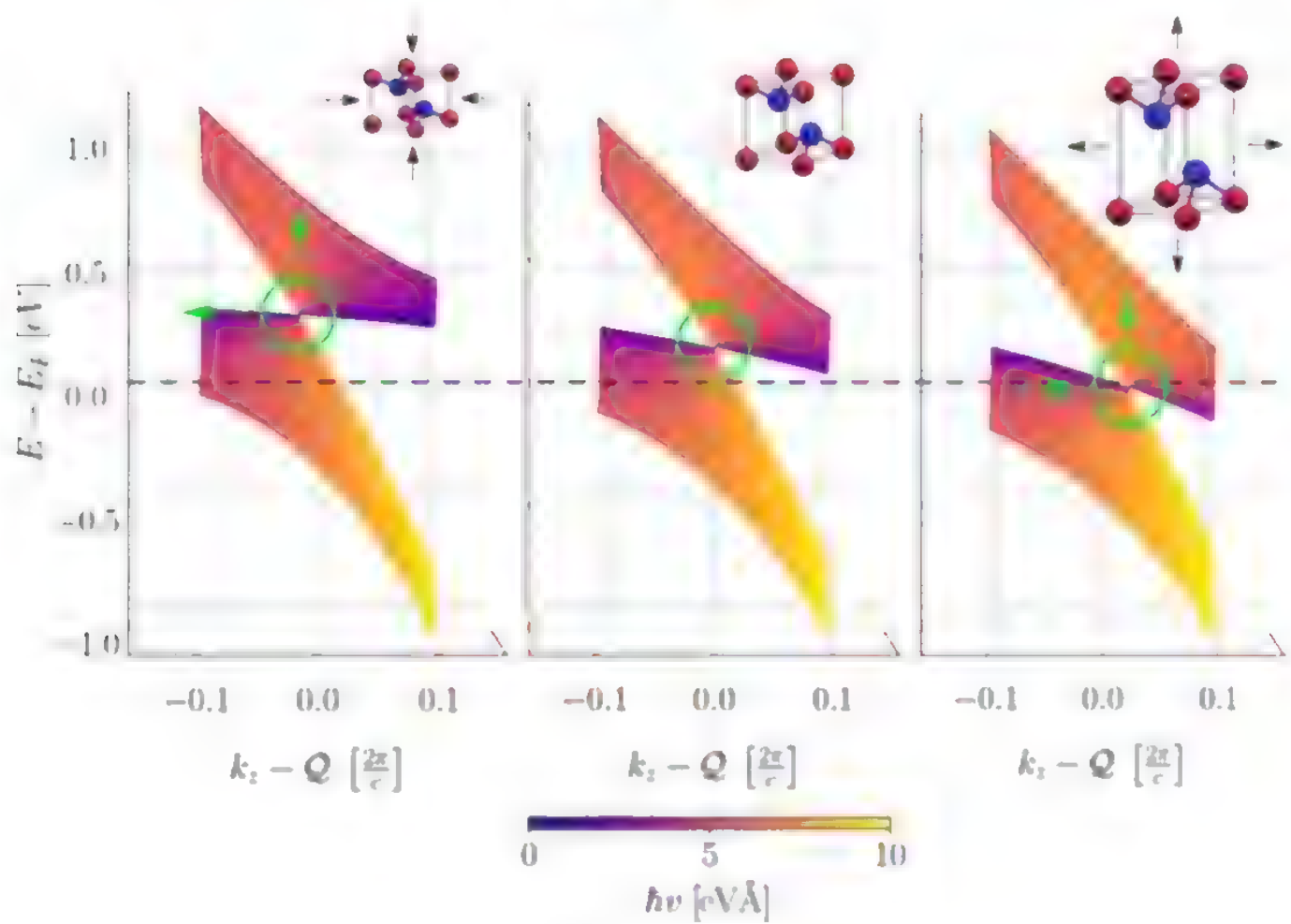
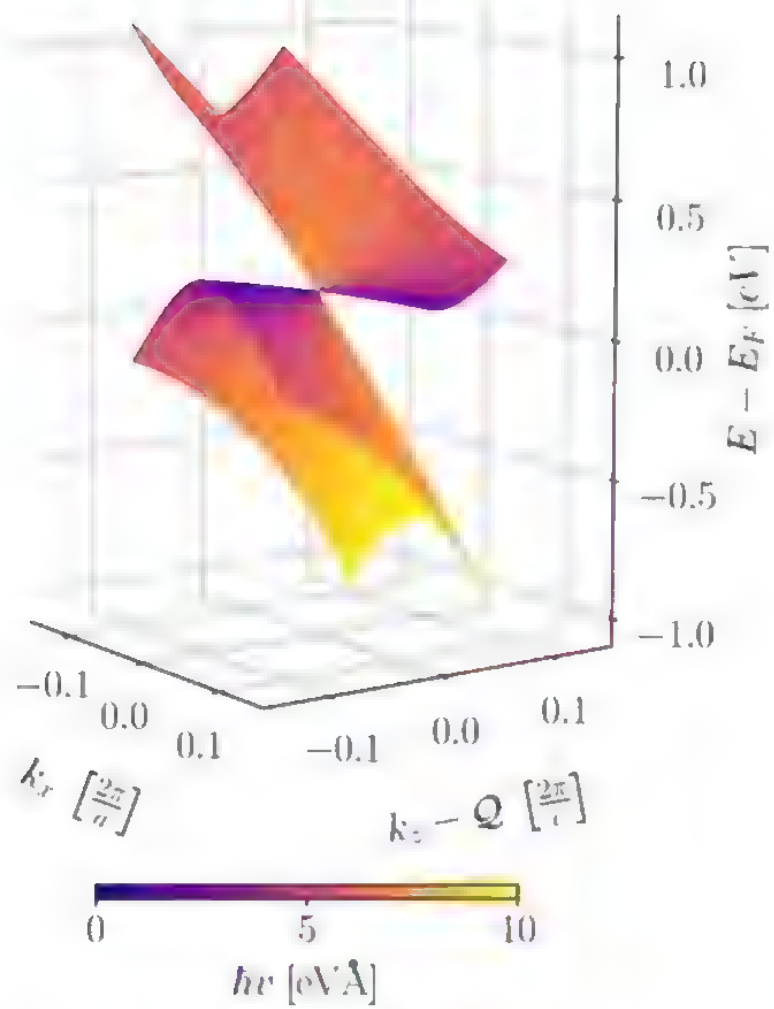
(a)  $\eta = (-0.02, -0.02, -0.02)$

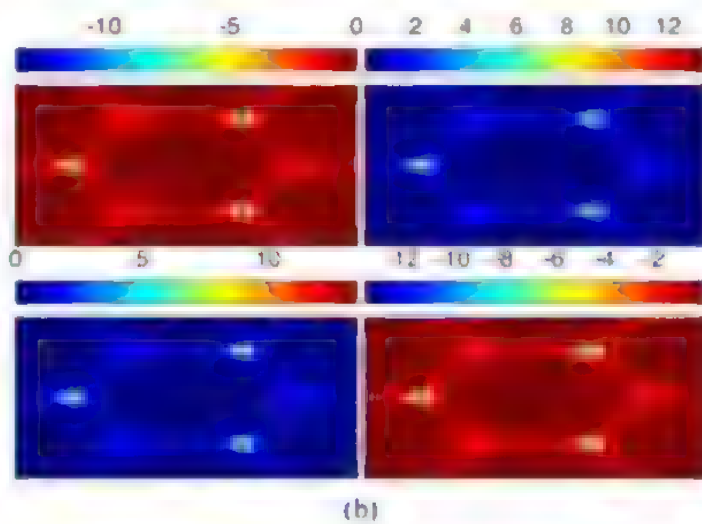
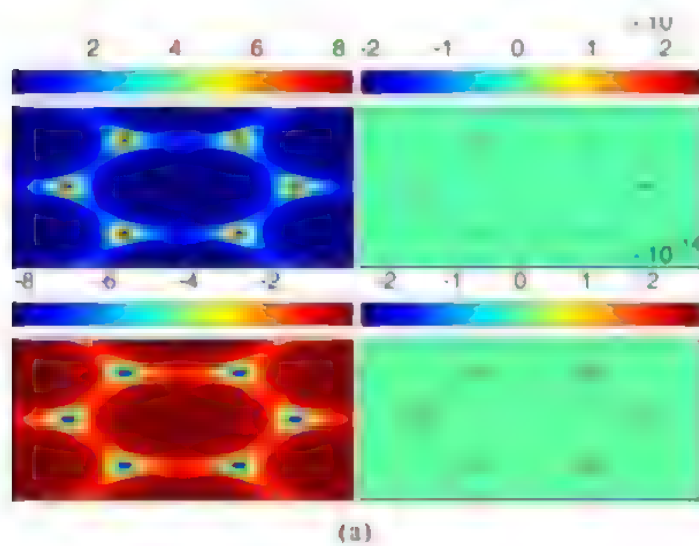
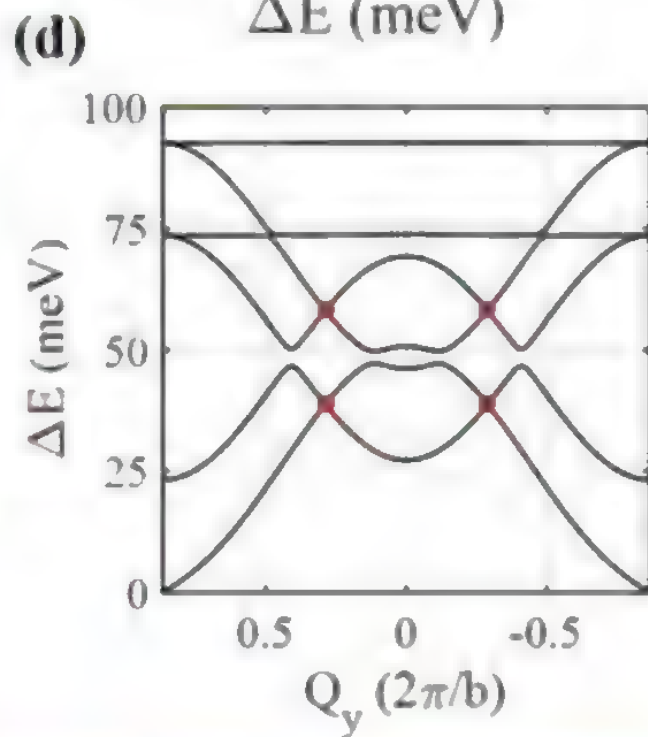
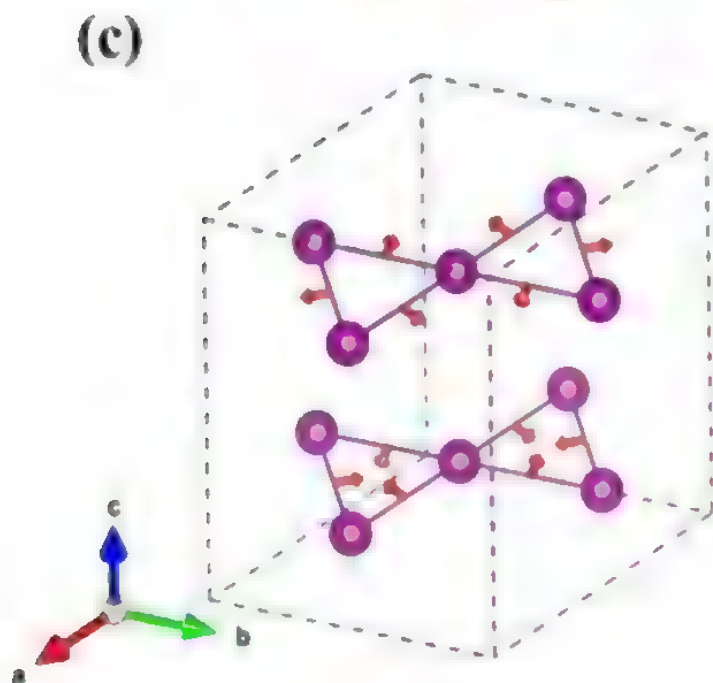
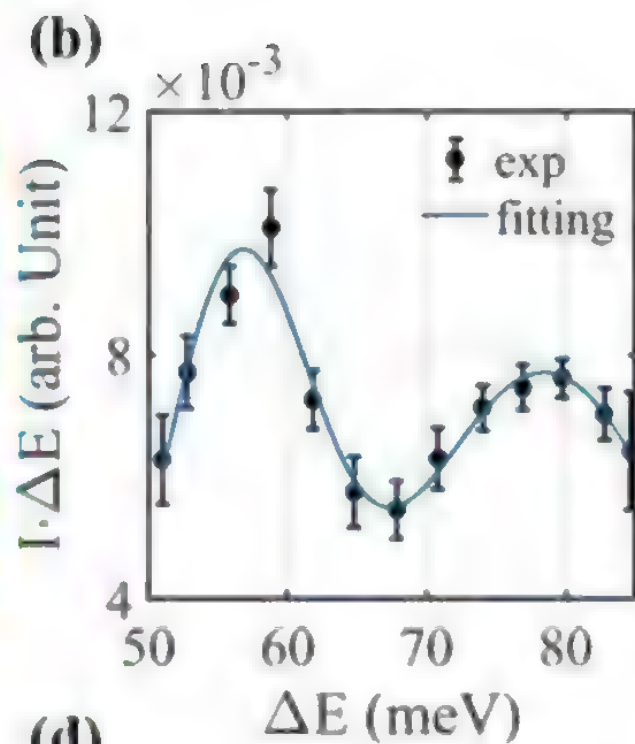
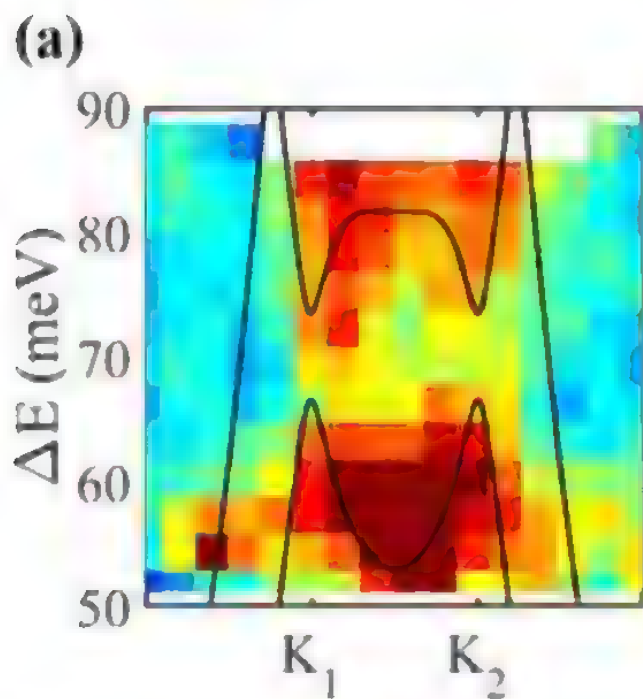
(b)  $\eta = (0.02, 0.02, 0.02)$

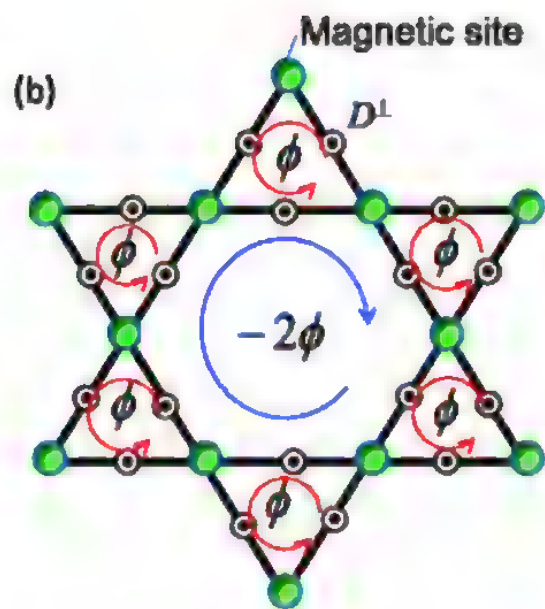
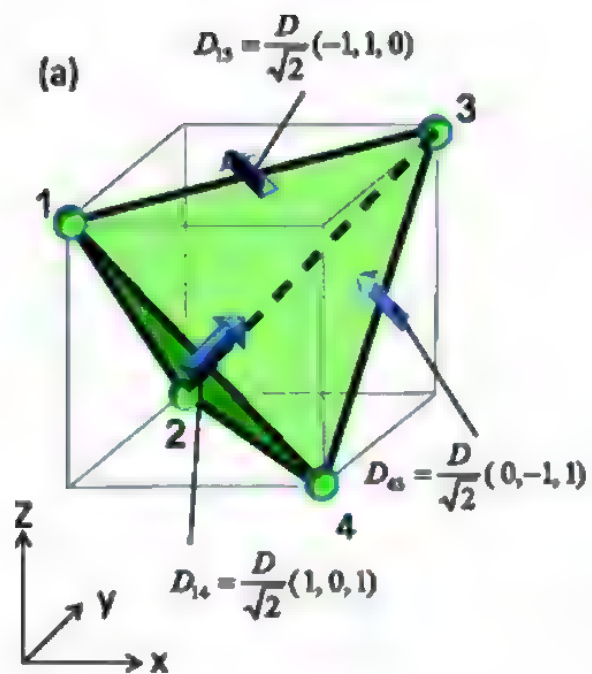




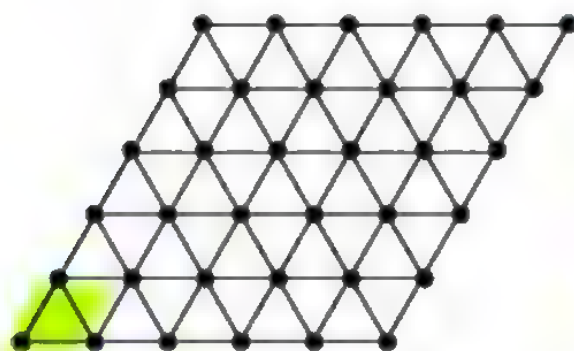




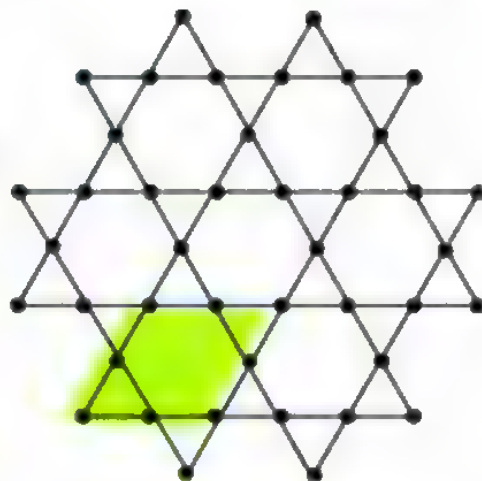




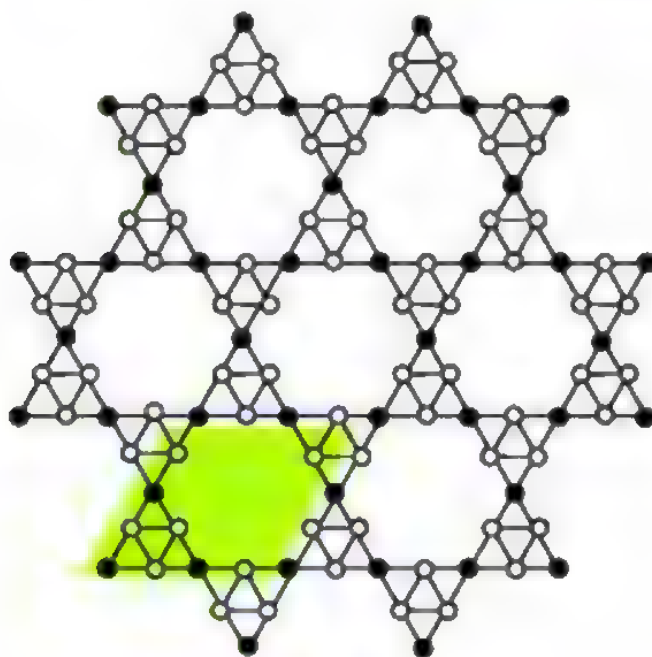
(111) plane



(a)

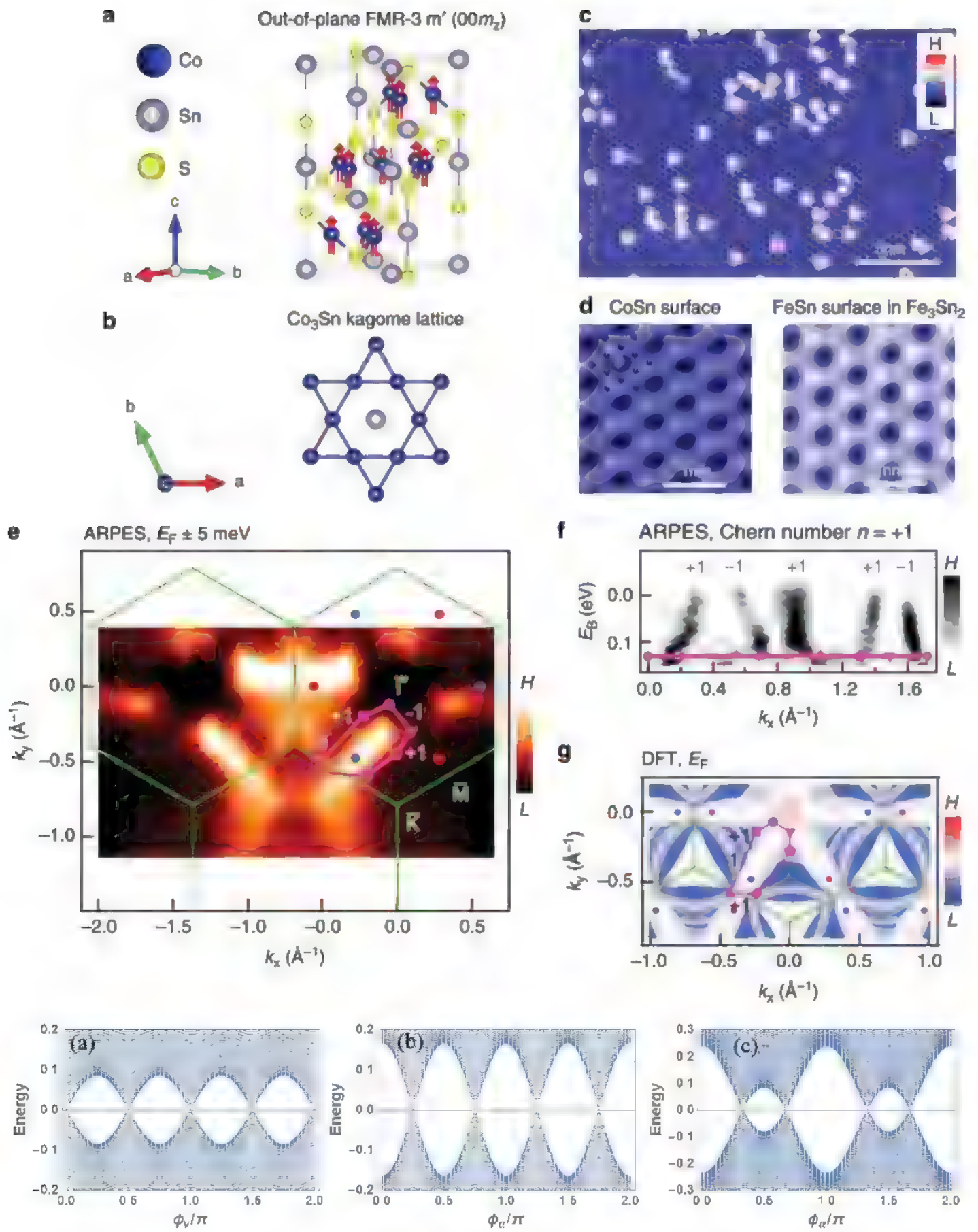


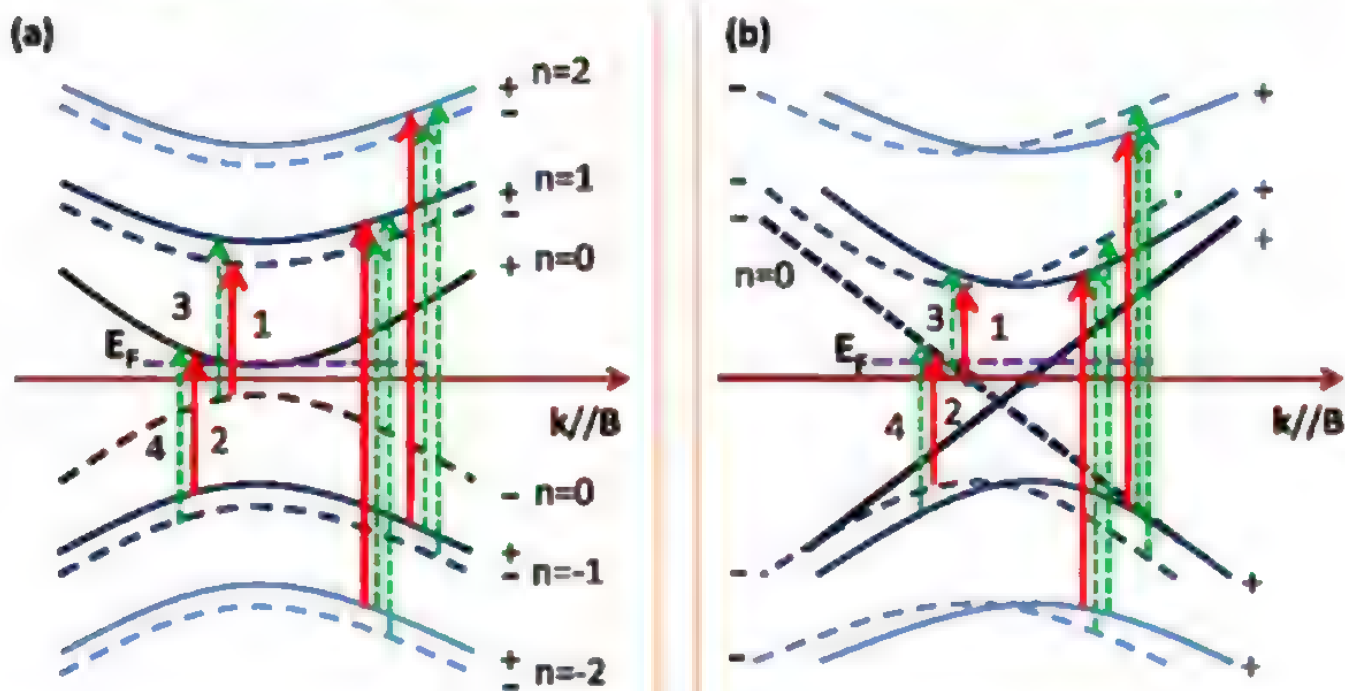
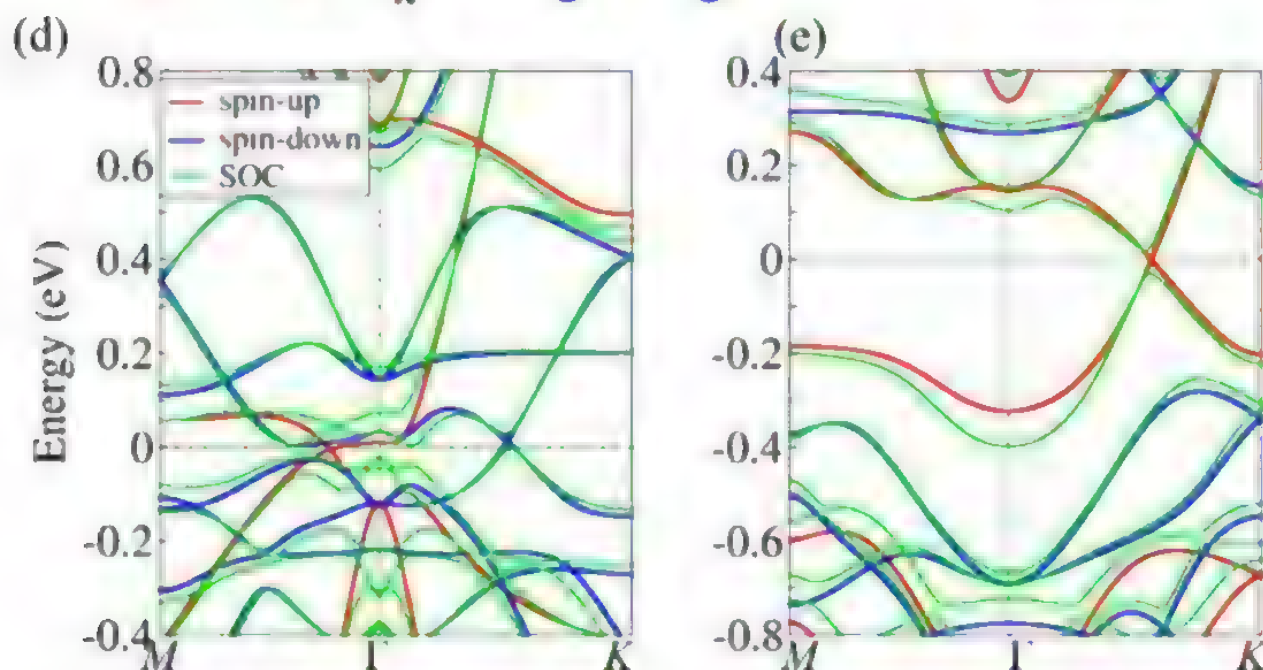
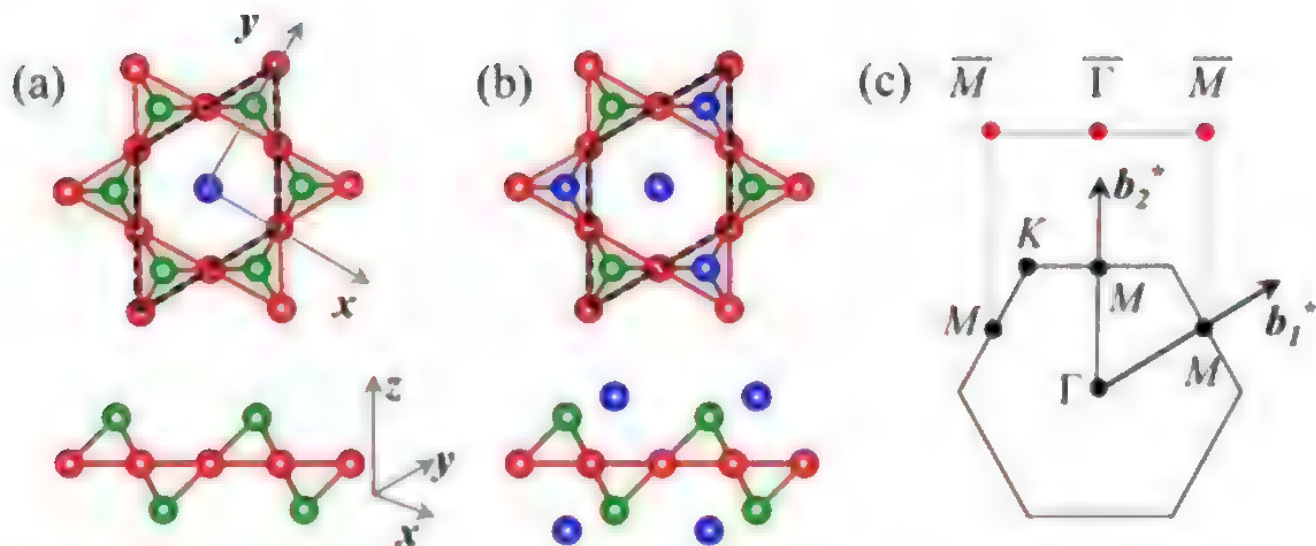
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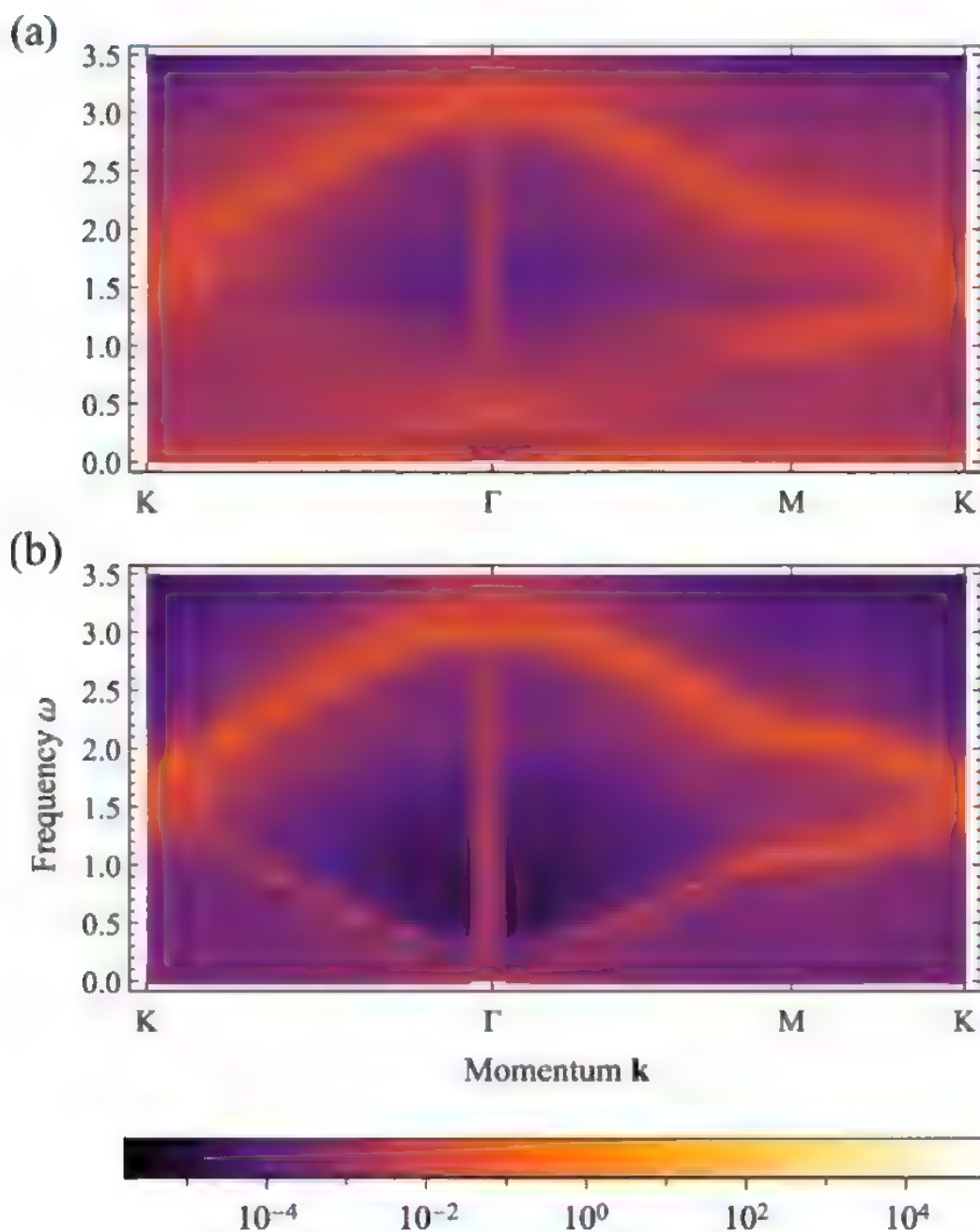
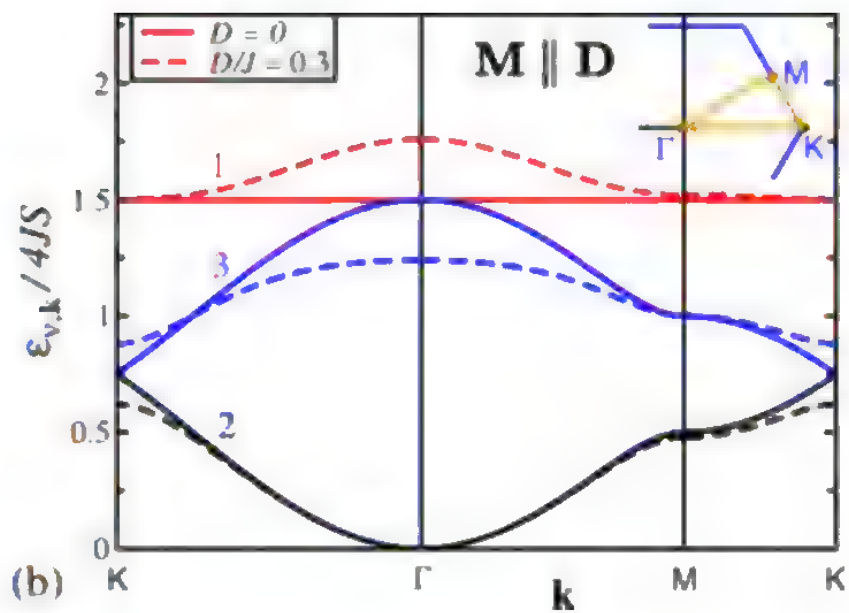
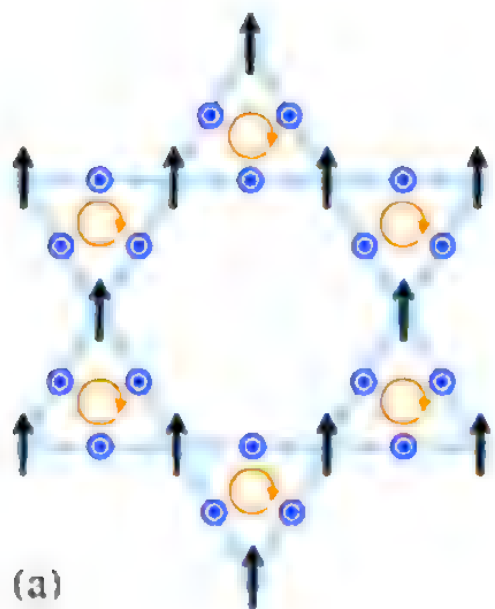


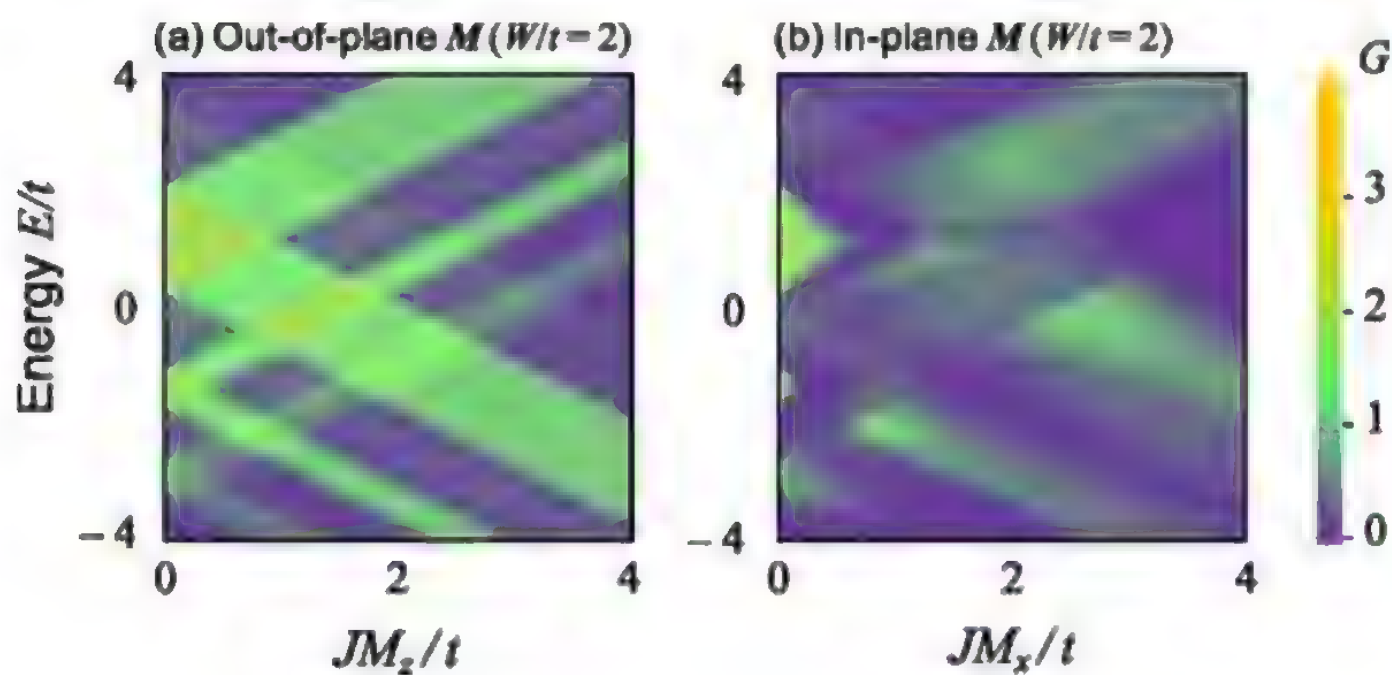
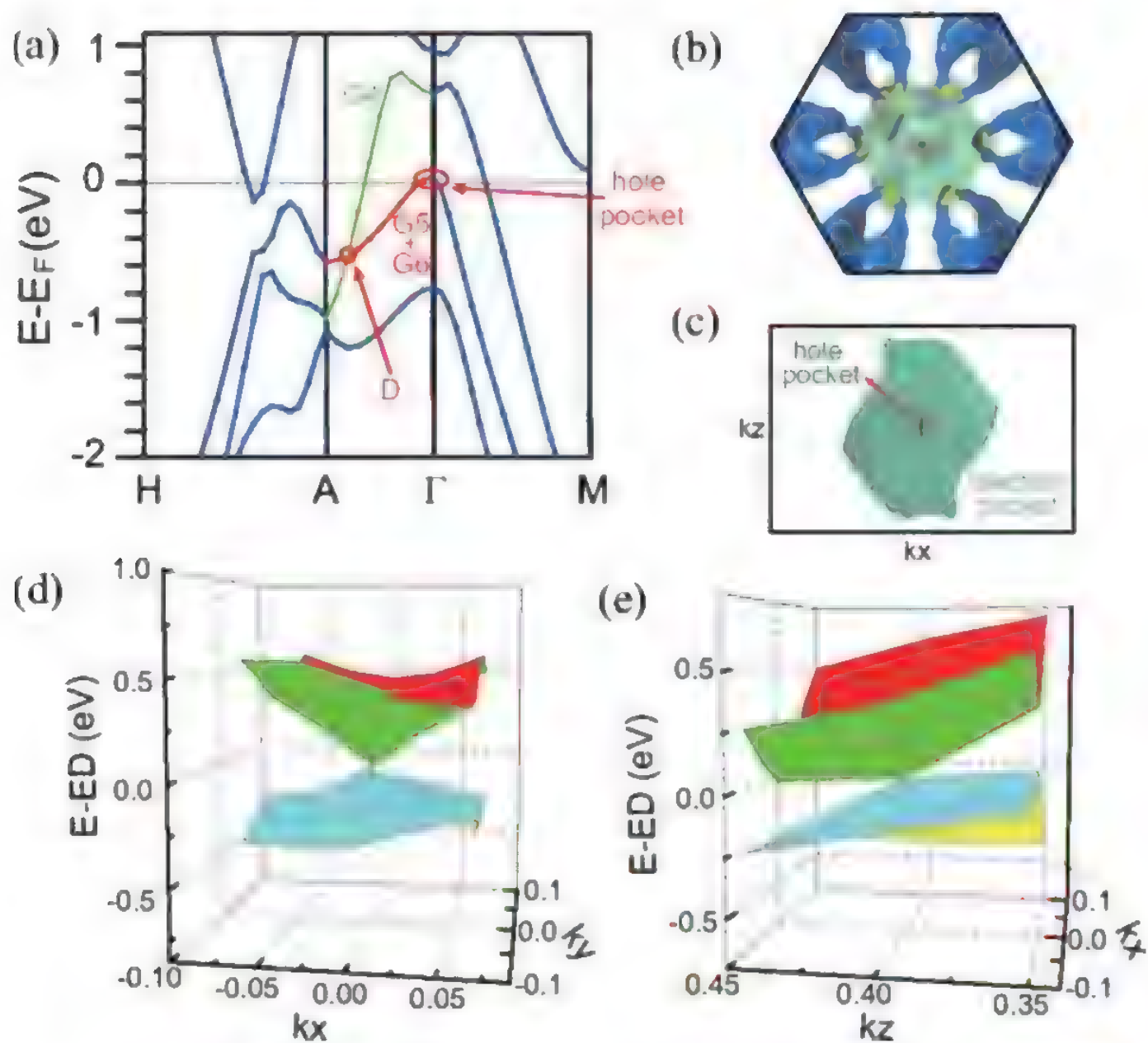
(c)



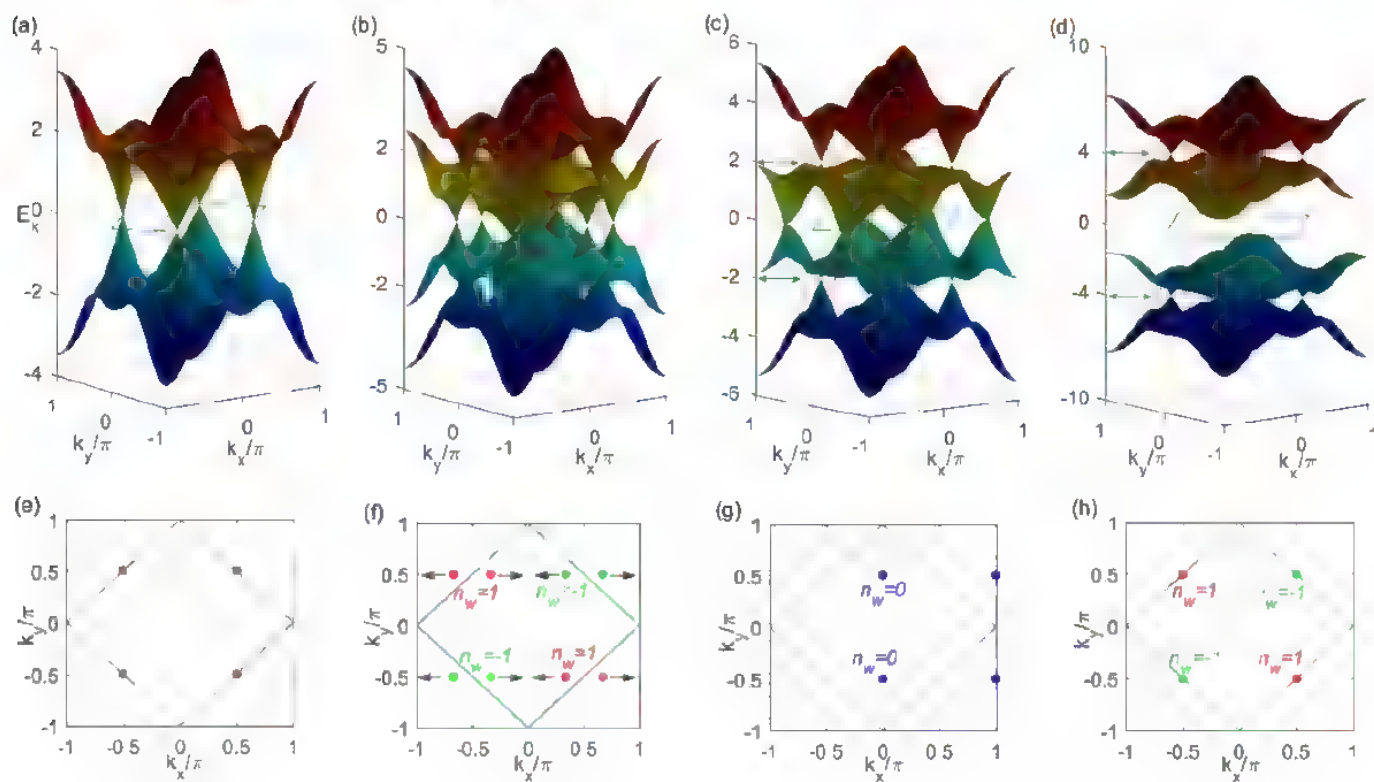
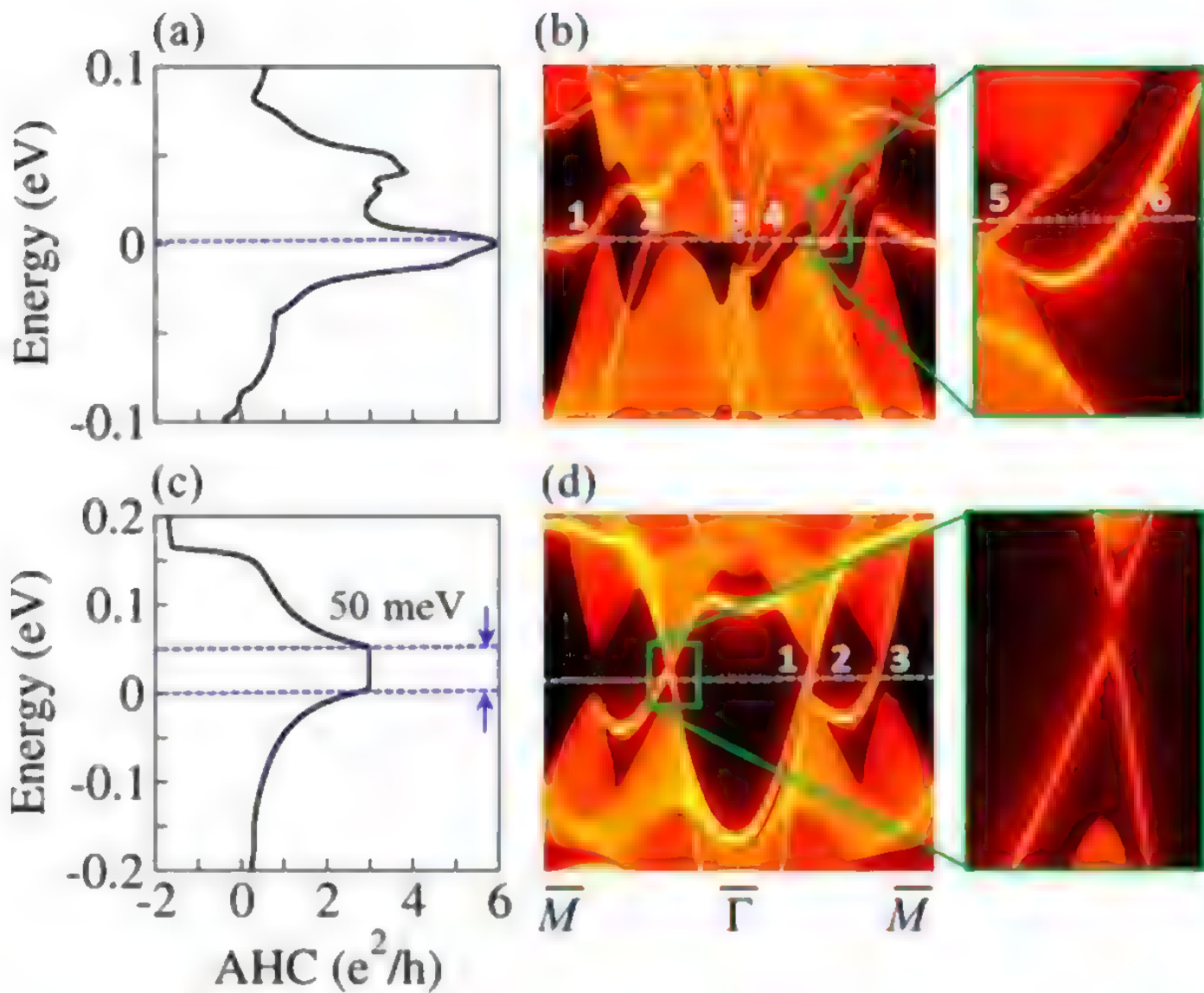


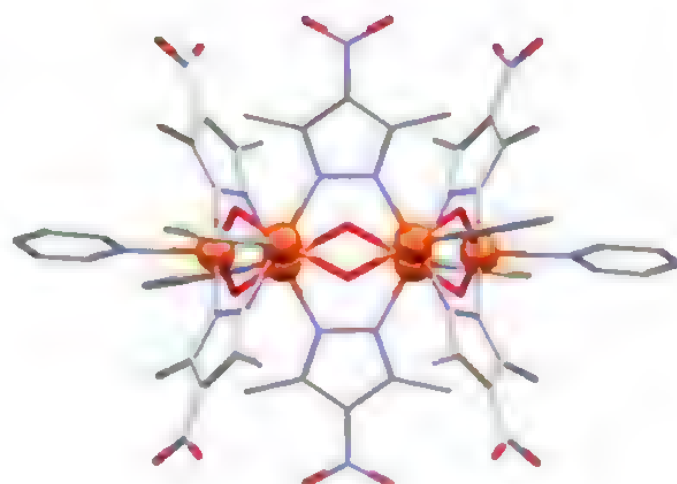
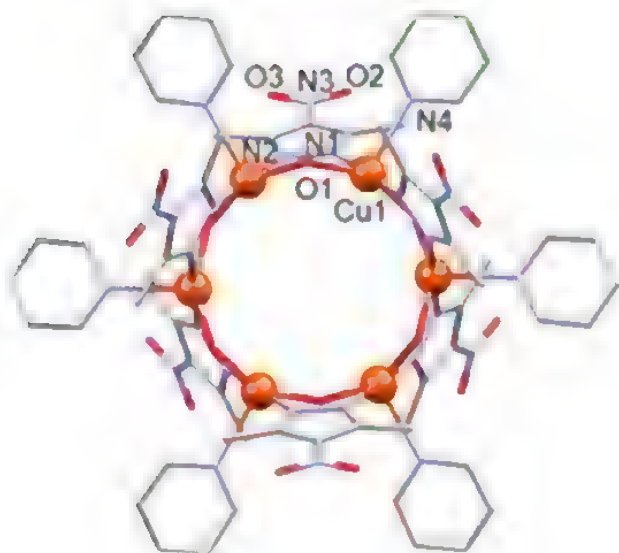
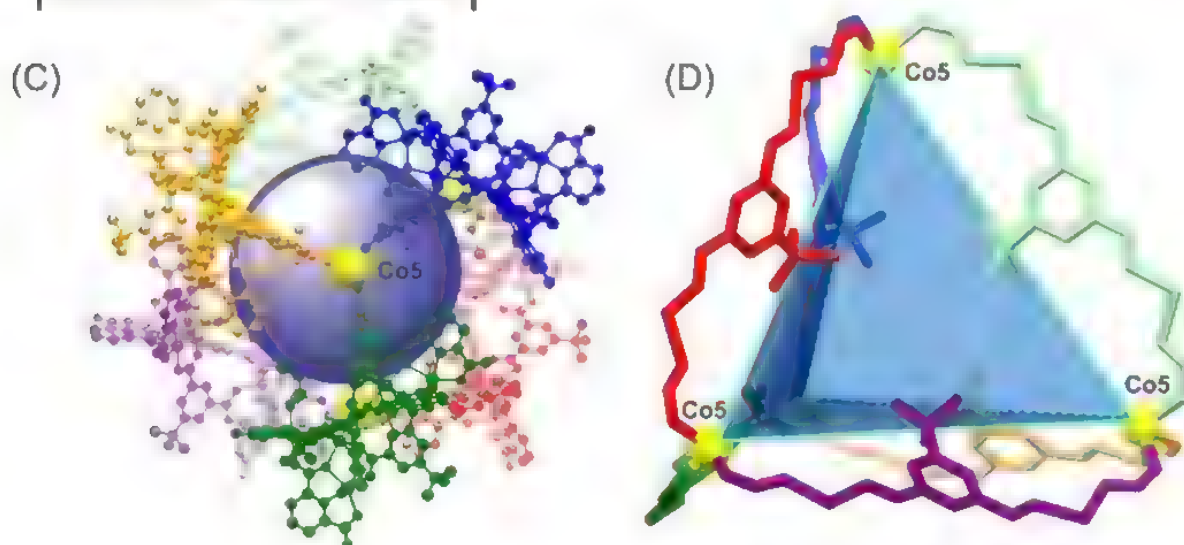
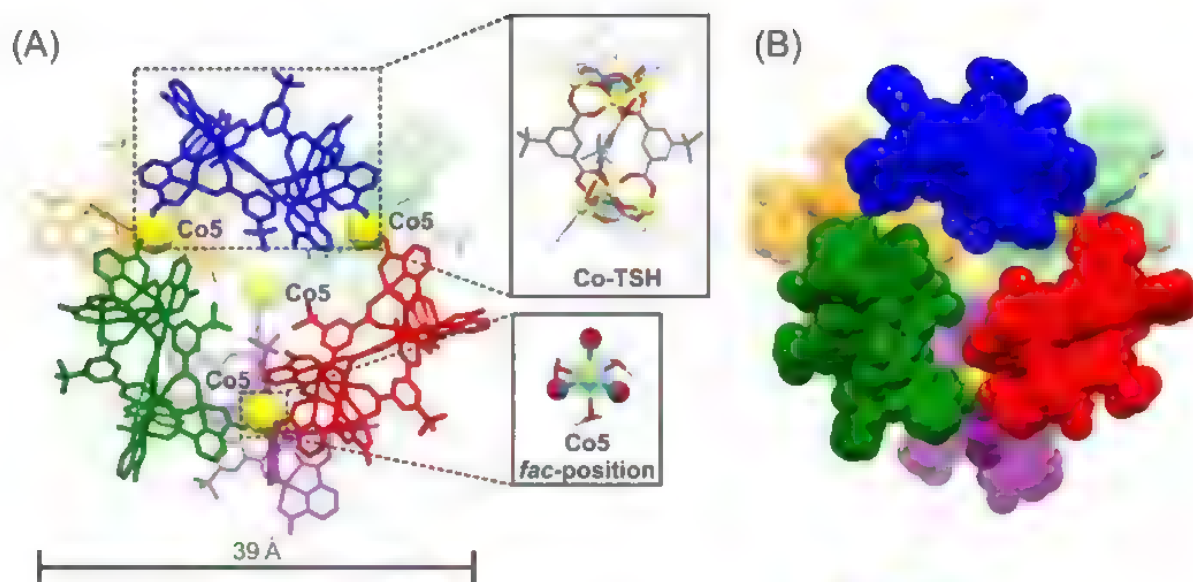


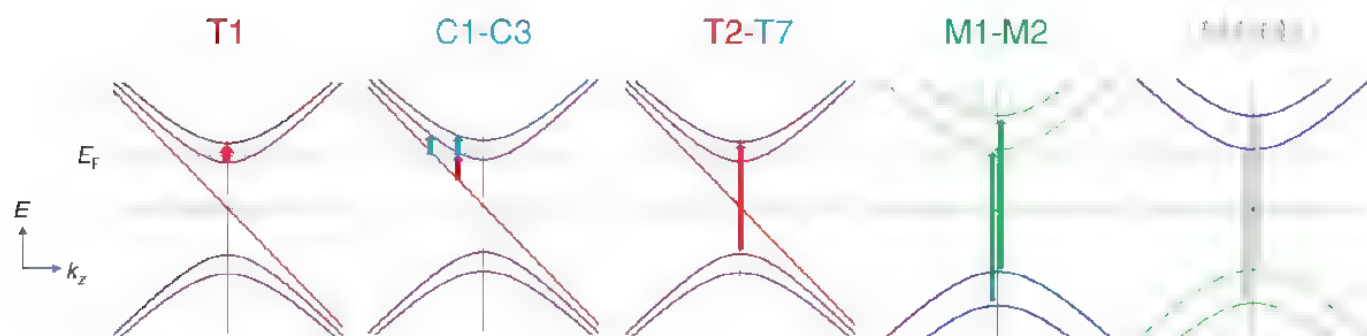
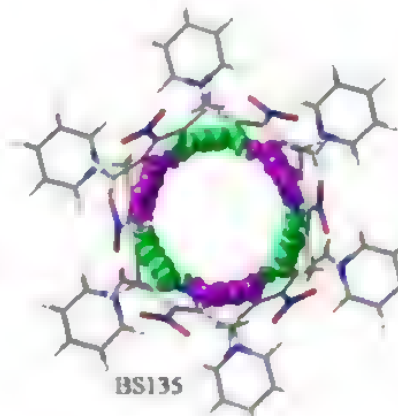
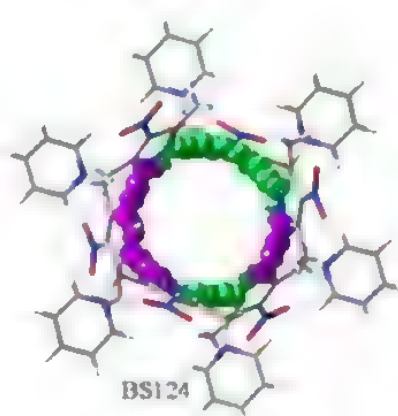
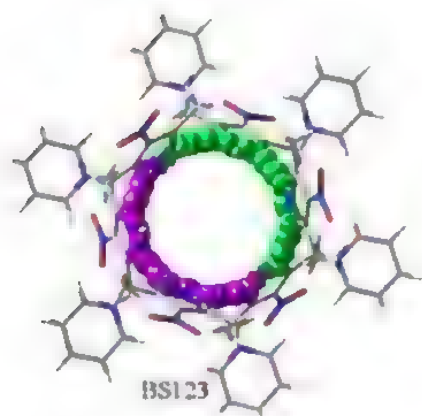
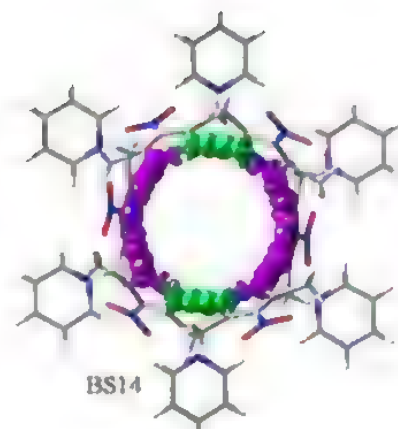
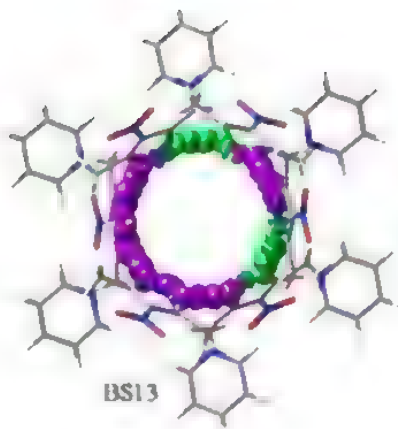
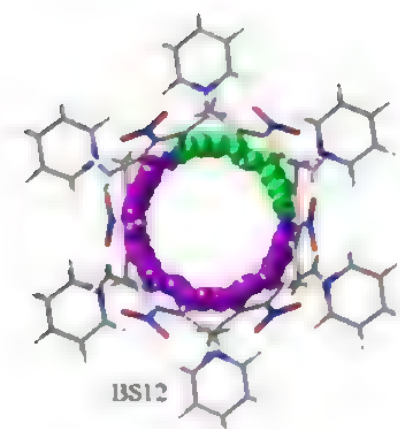


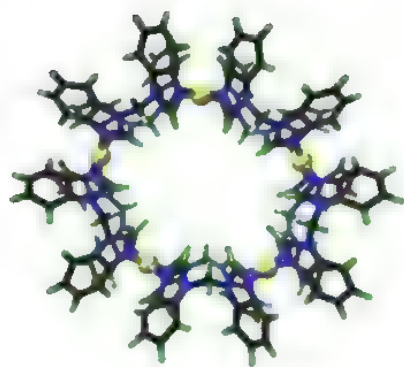
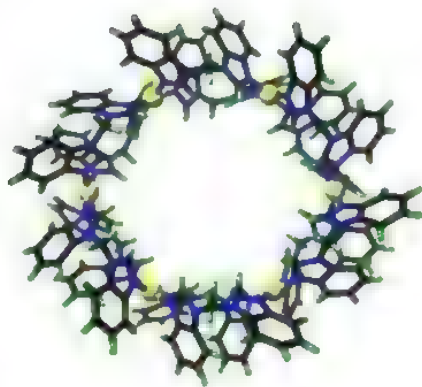
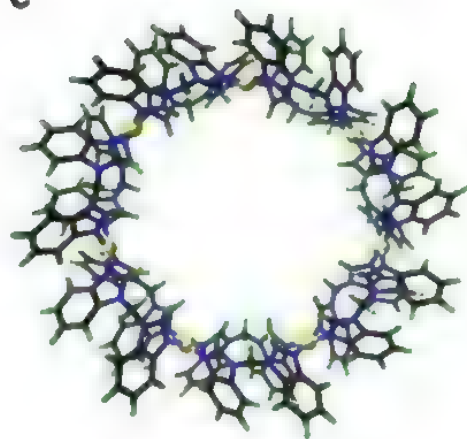
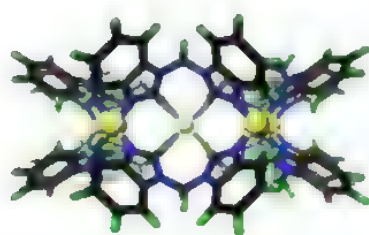
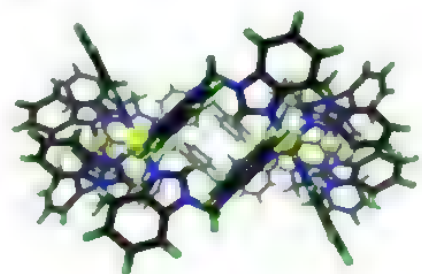
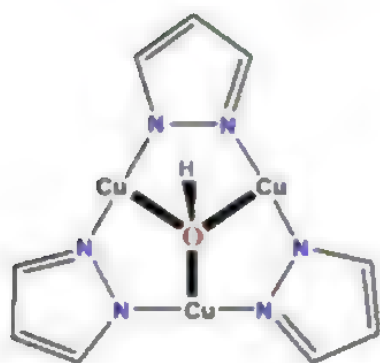
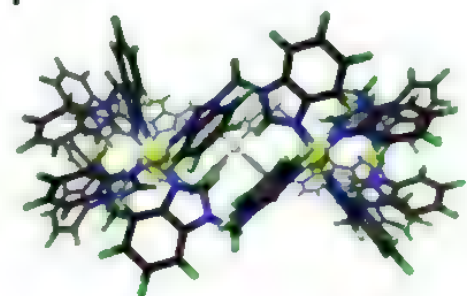
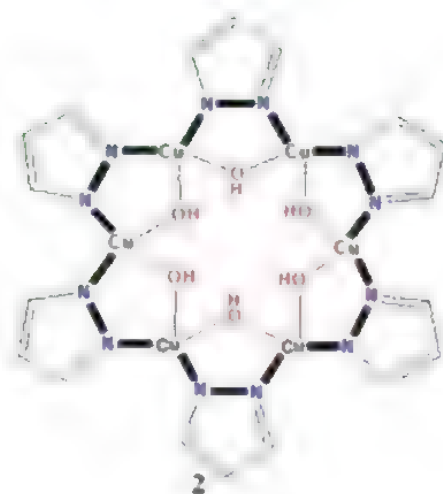
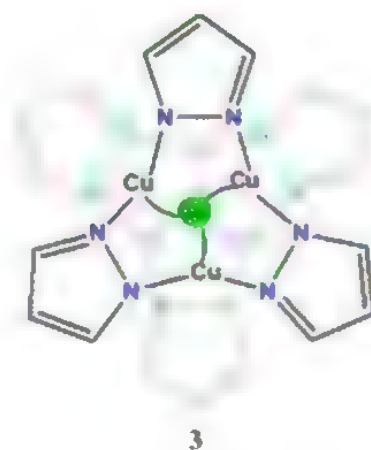




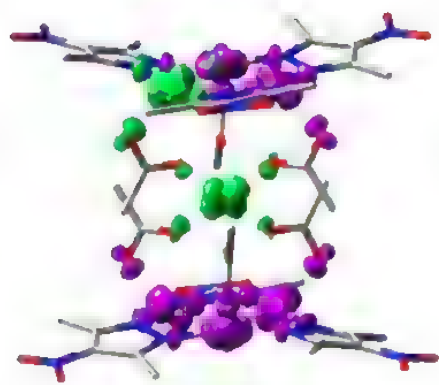




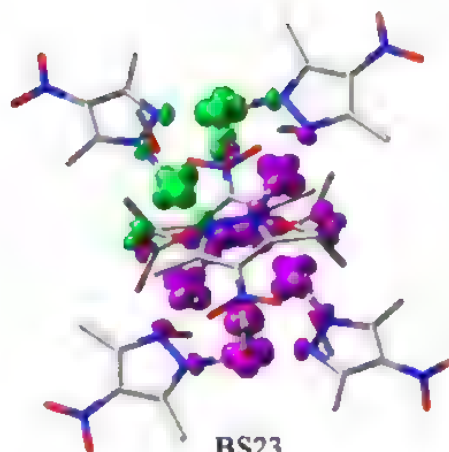


**a****c****e****b****d****f****1****2****3**

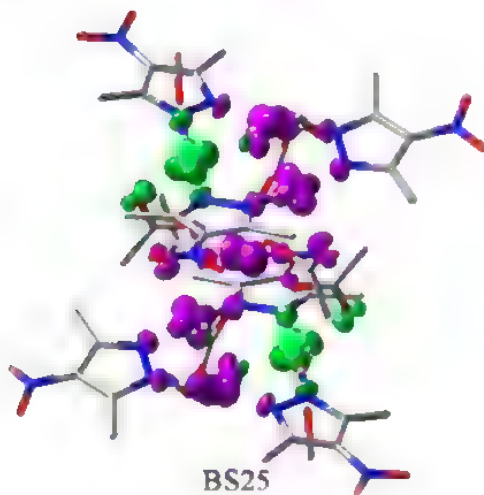




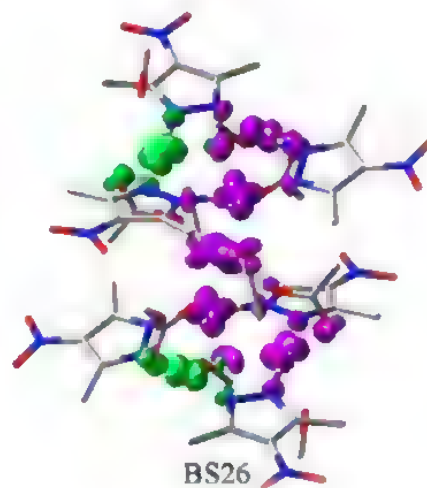
BS12



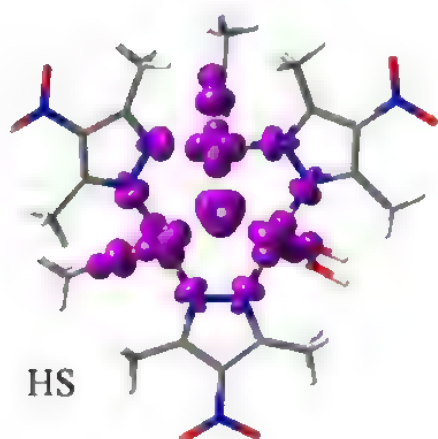
BS23



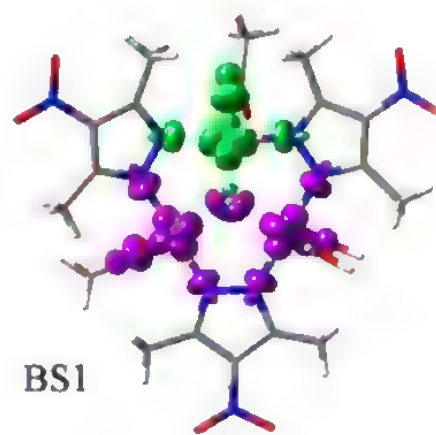
BS25



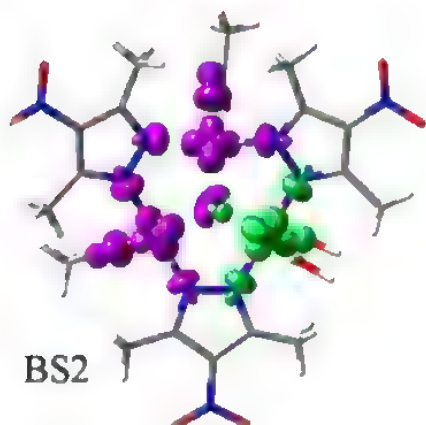
BS26



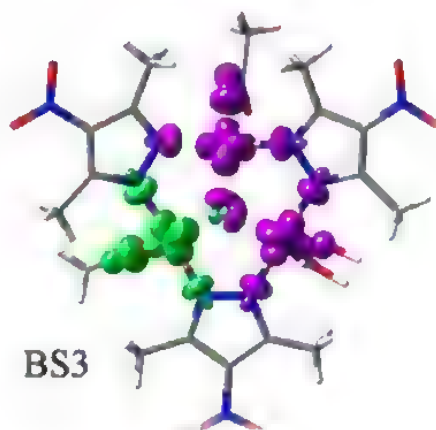
HS



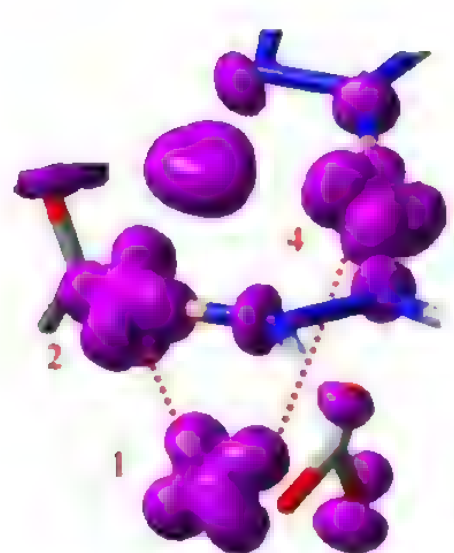
BS1



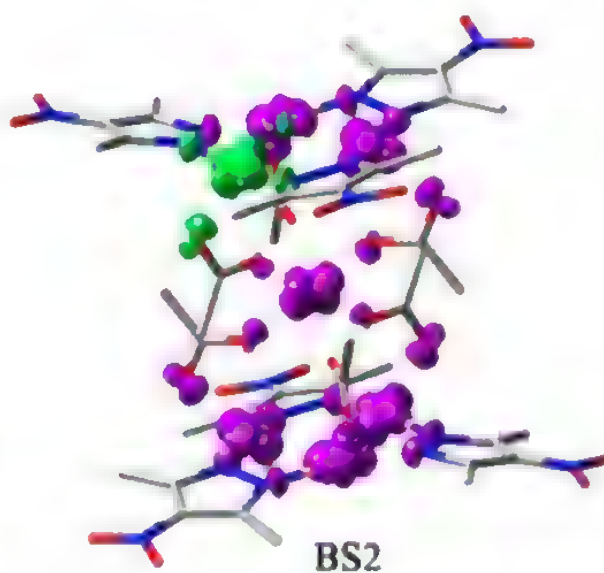
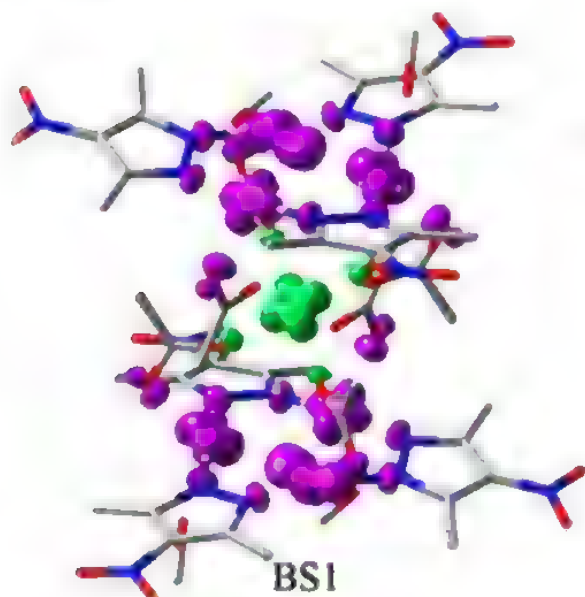
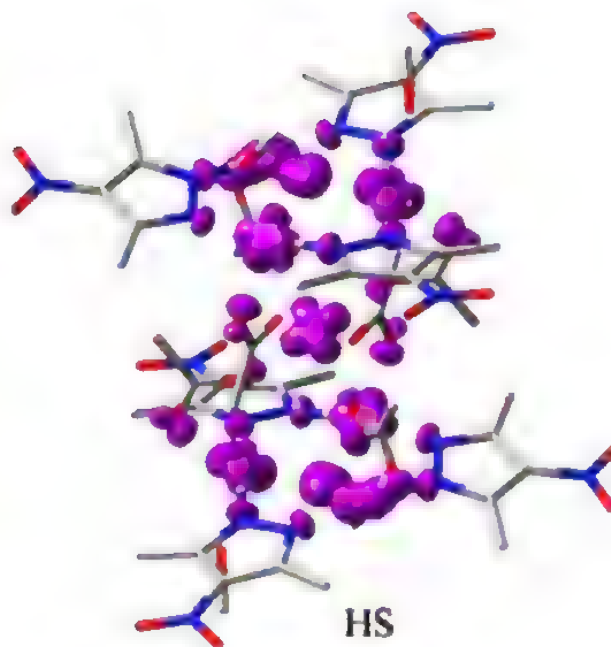
BS2



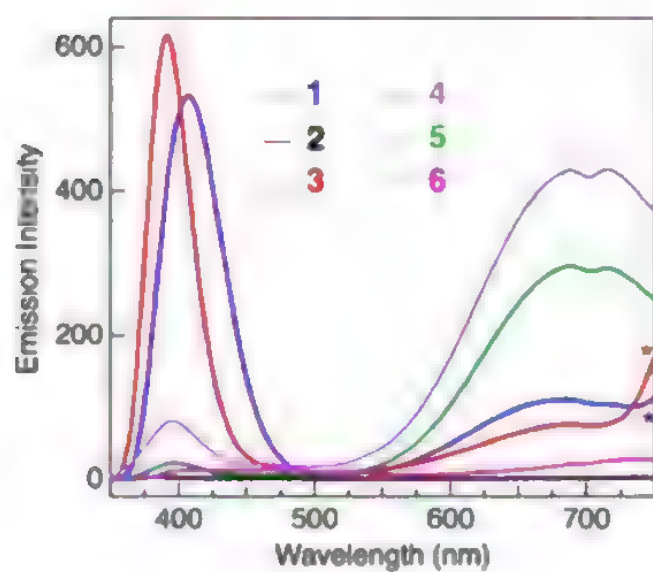
BS3



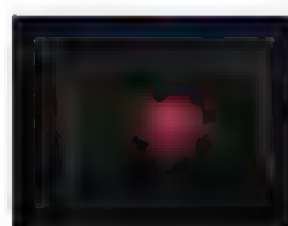
Spin density on selected magnetic orbitals (close-up)



(a)



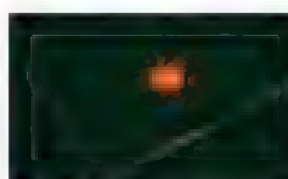
(b)



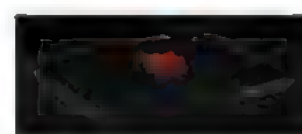
Complex 1



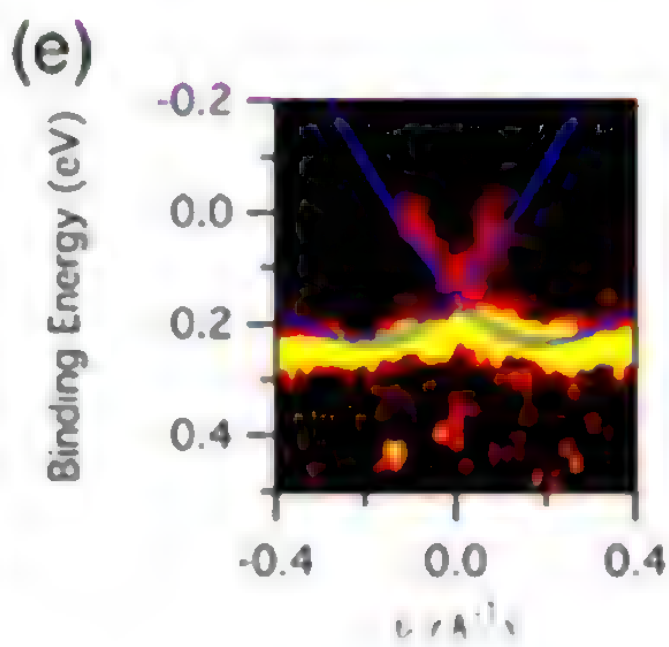
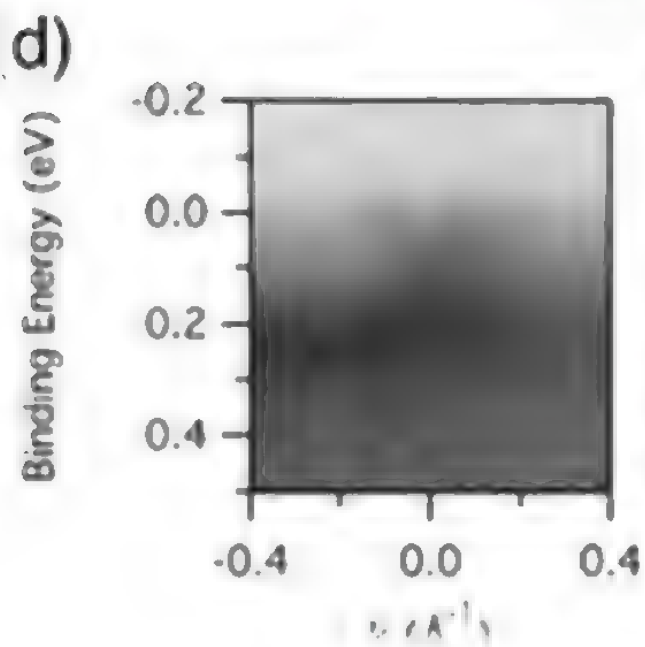
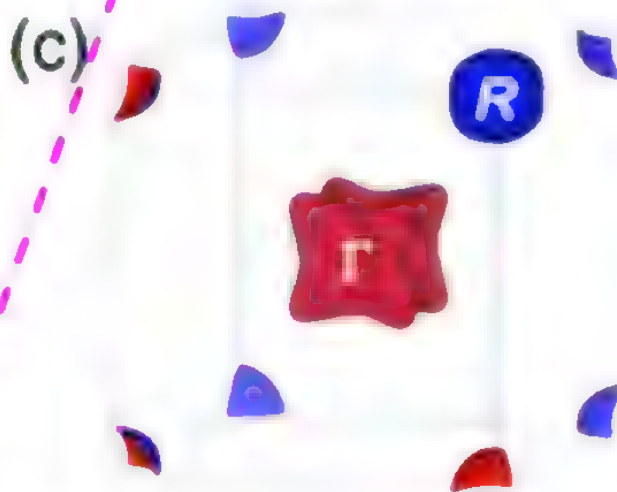
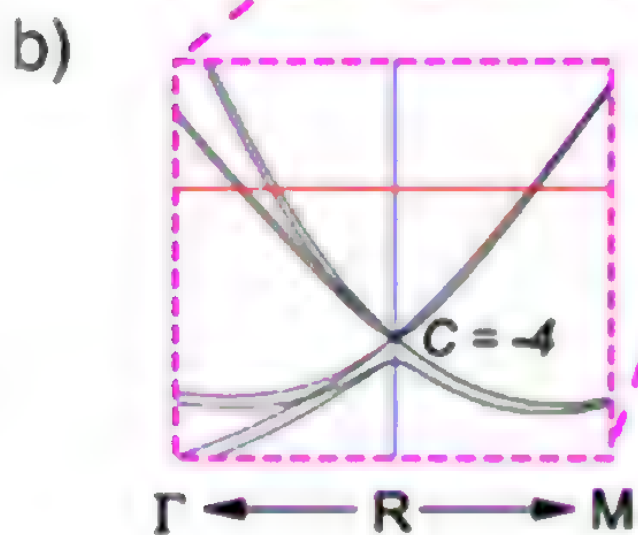
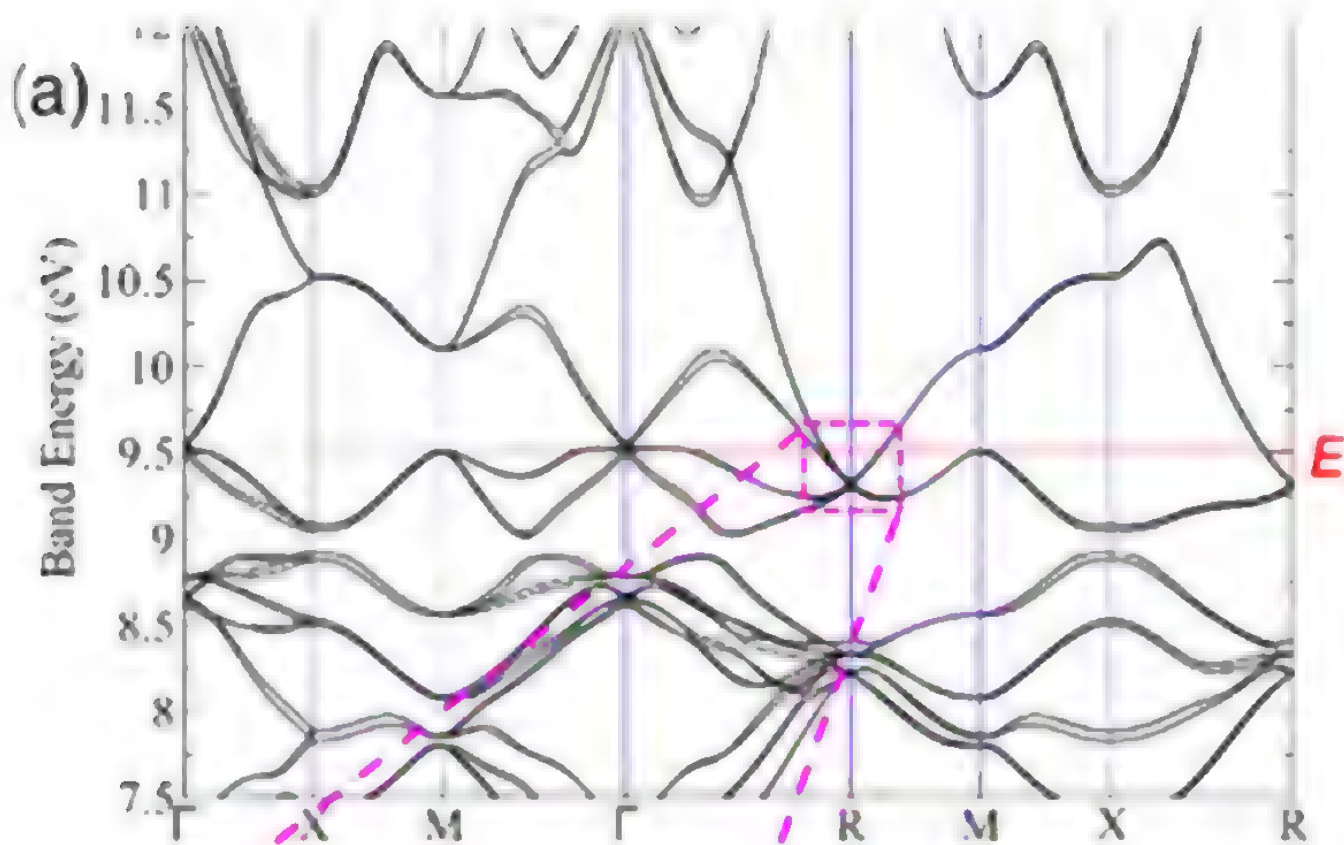
Complex 3



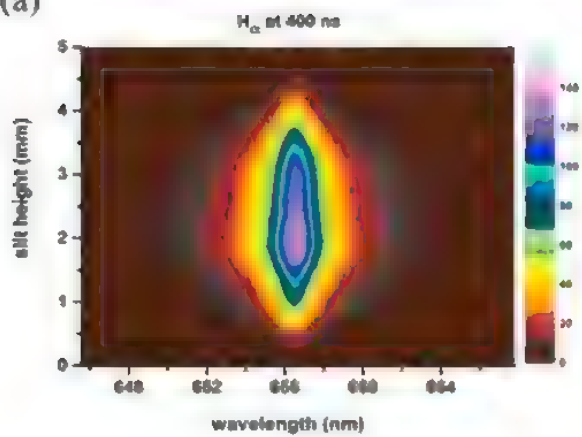
Complex 4



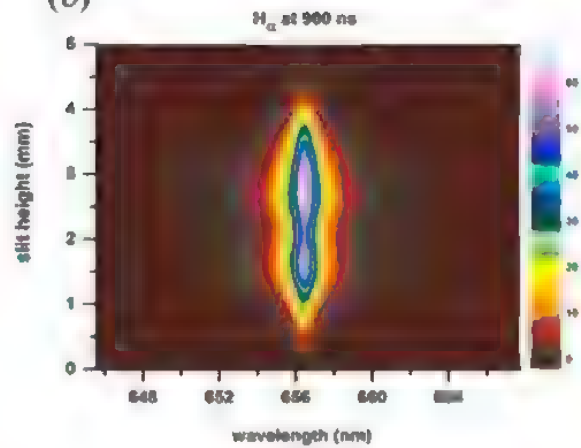
Complex 5



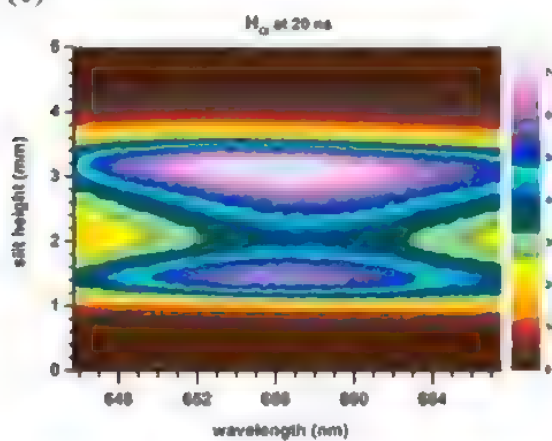
(a)



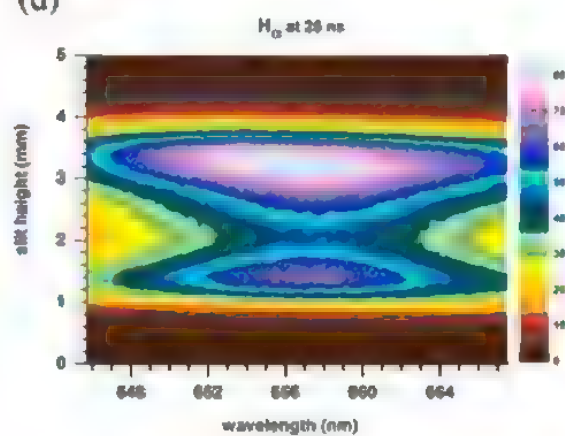
(b)



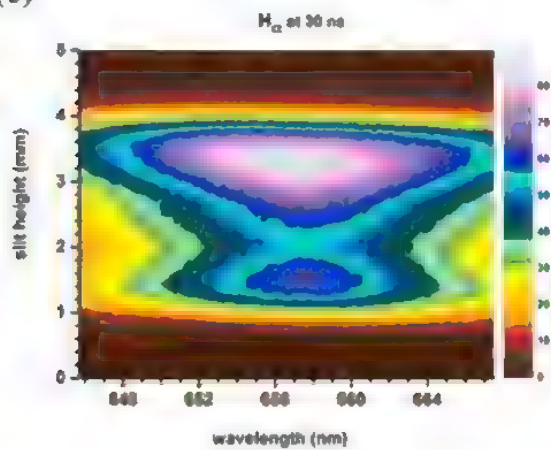
(c)



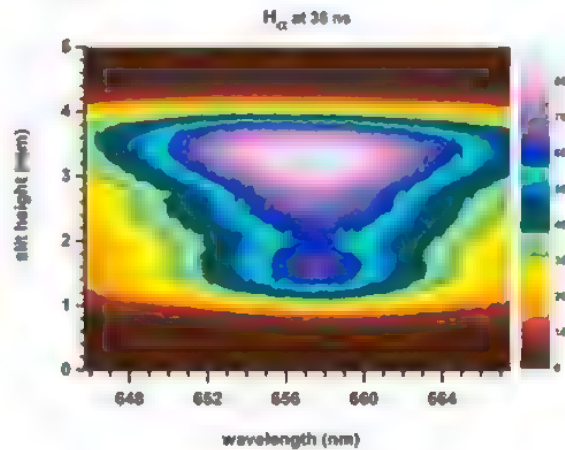
(d)



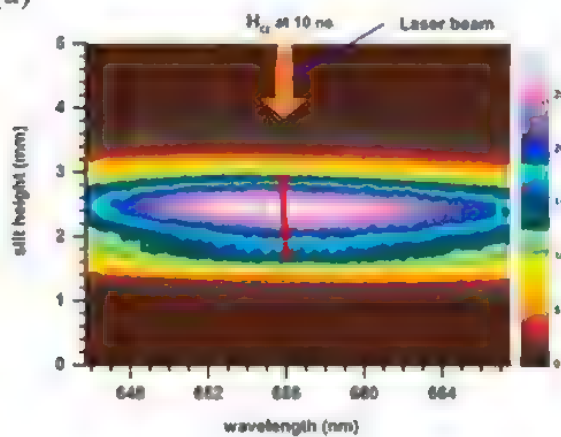
(e)



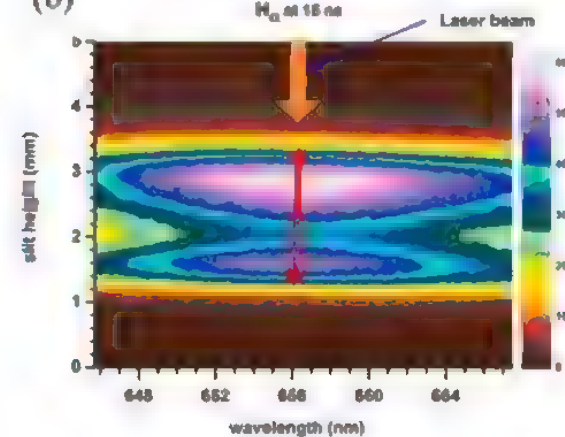
(f)



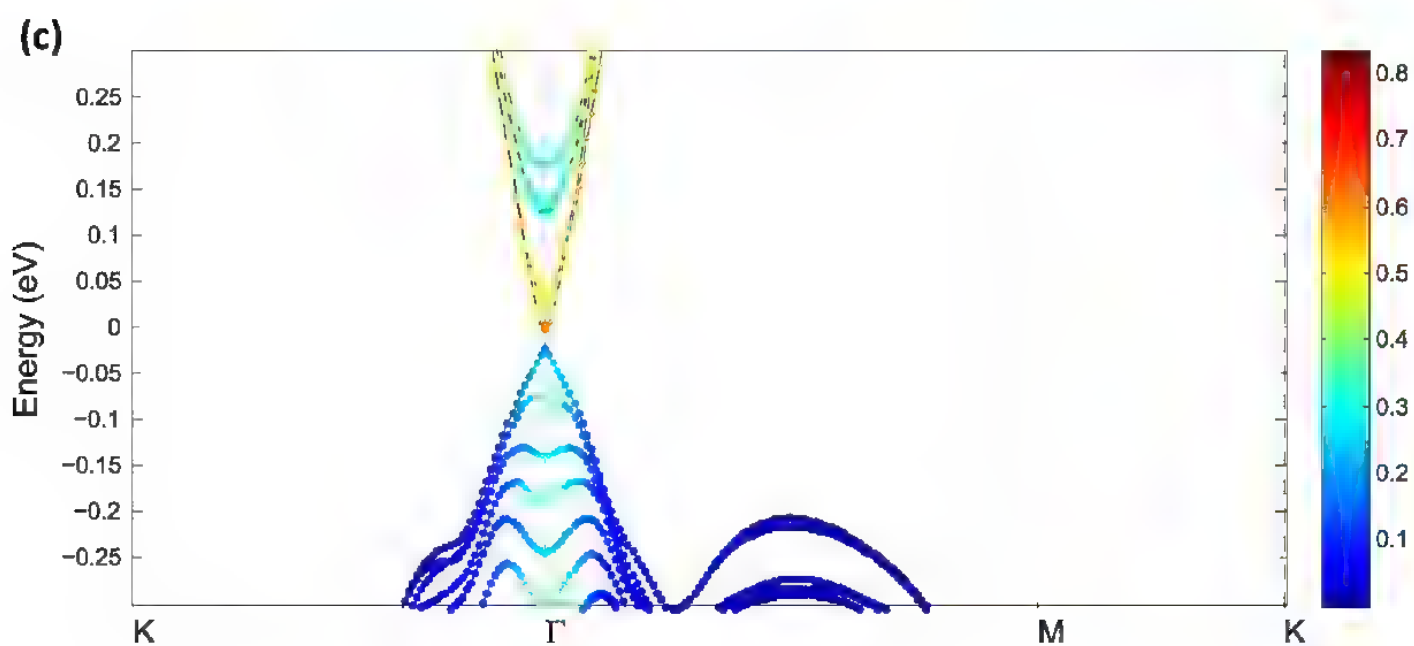
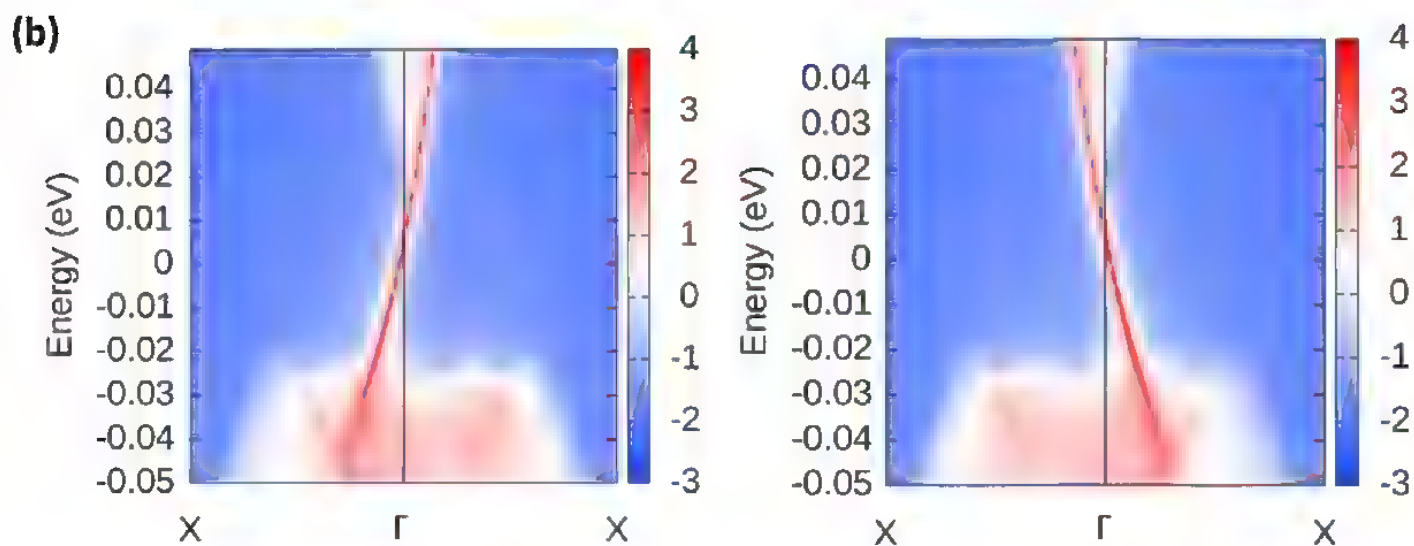
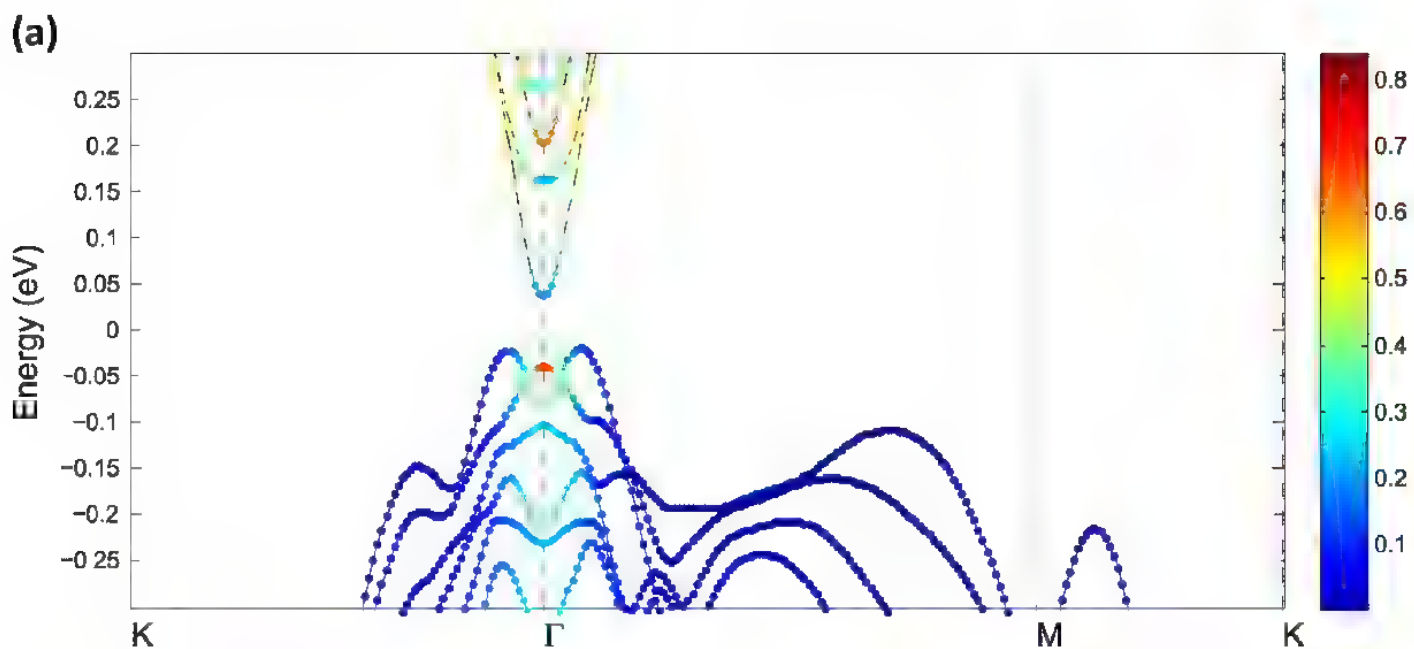
(a)

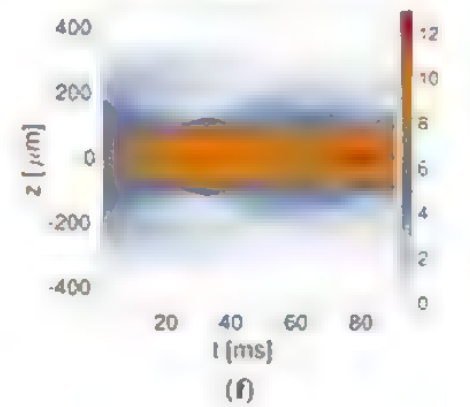
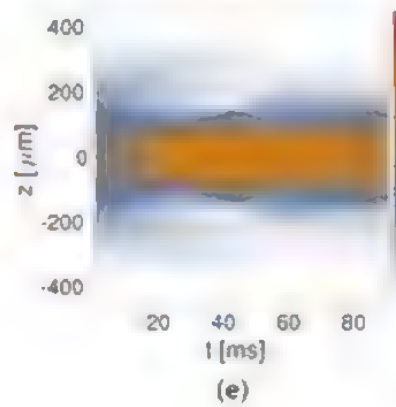
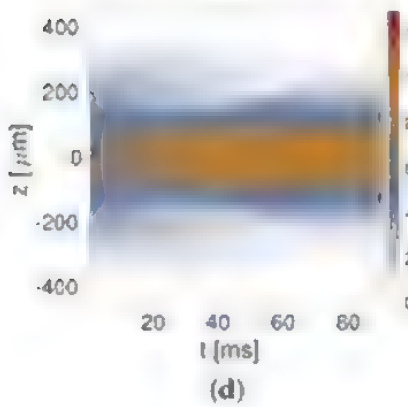
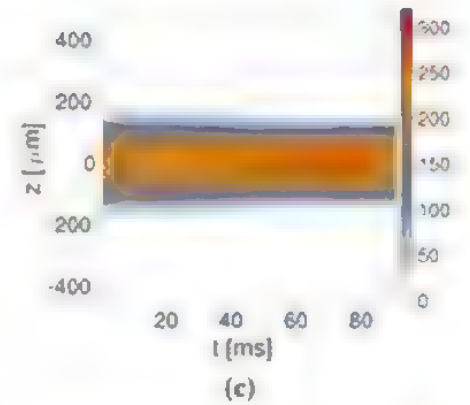
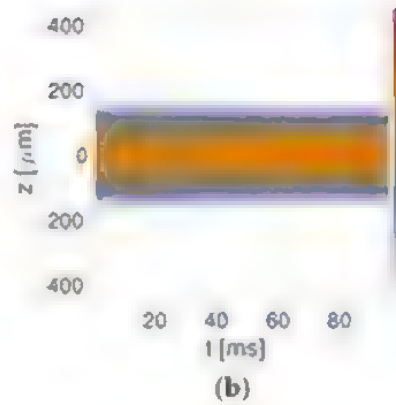
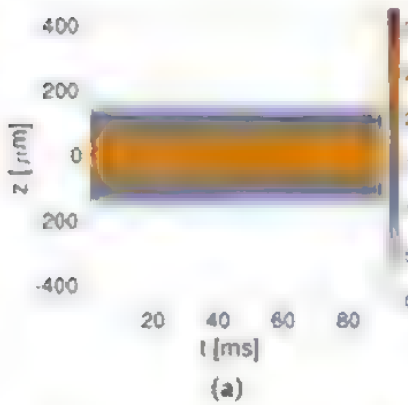
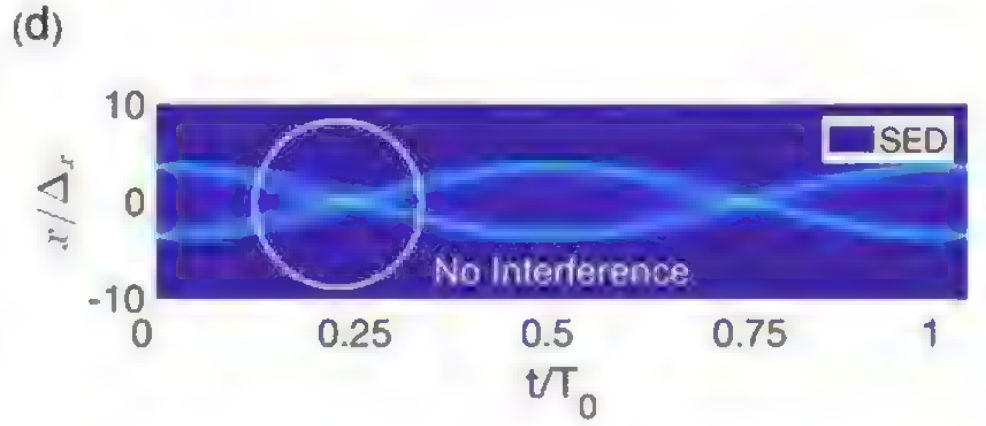
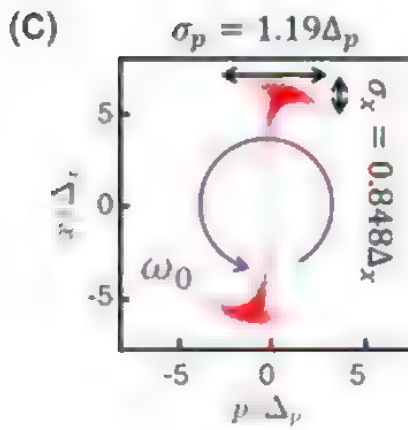
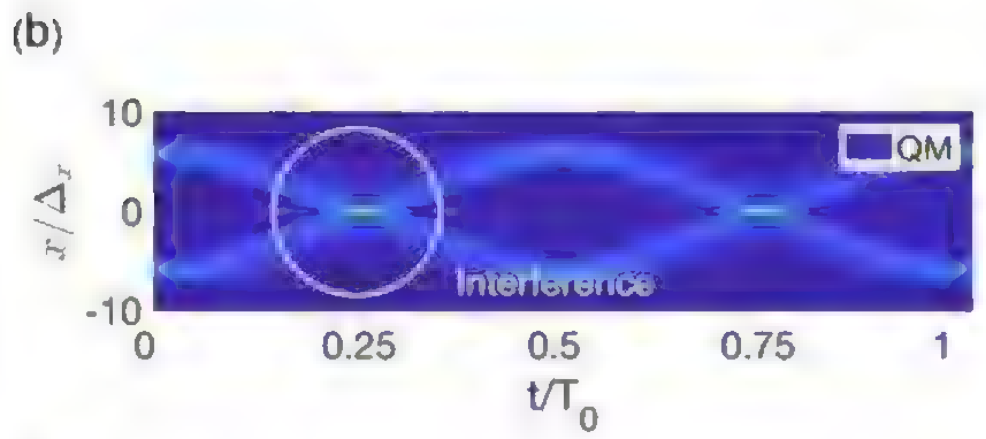
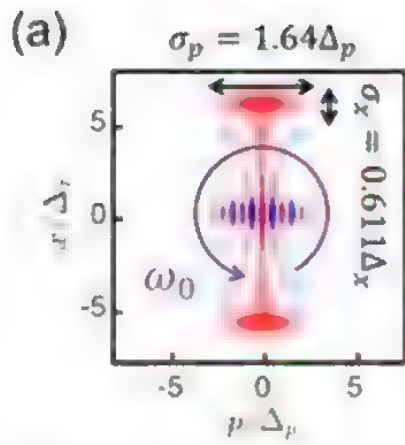


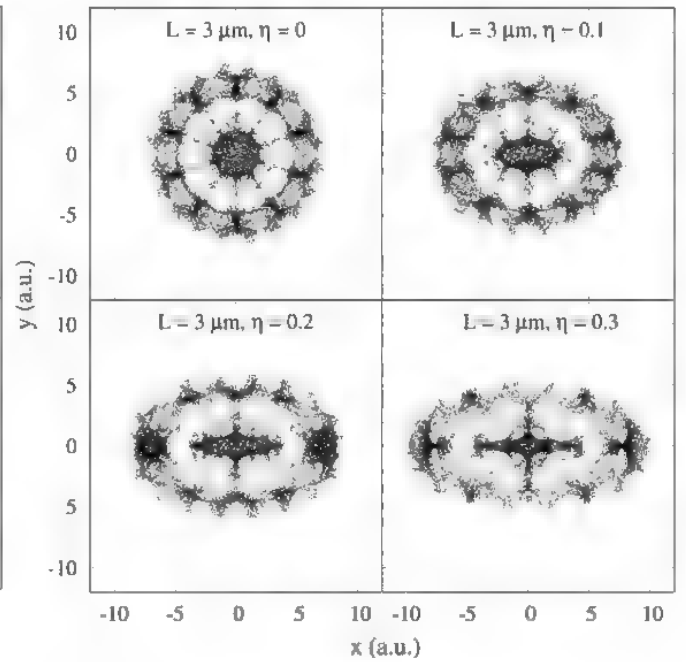
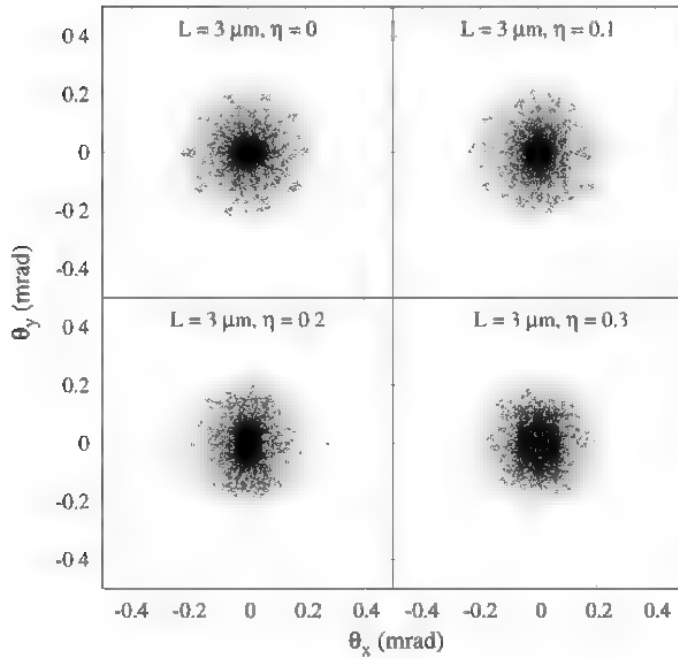
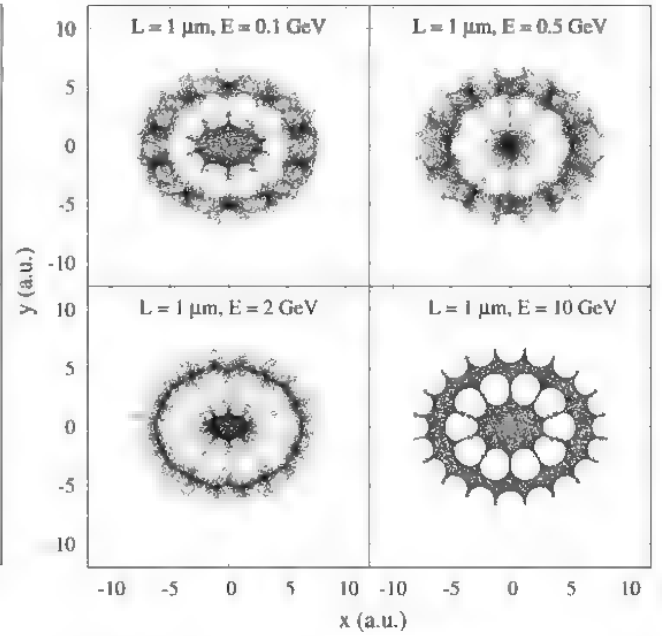
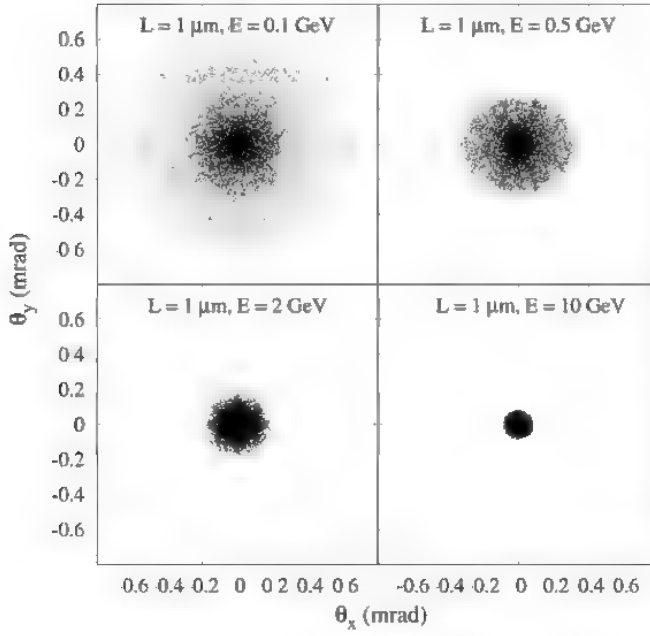
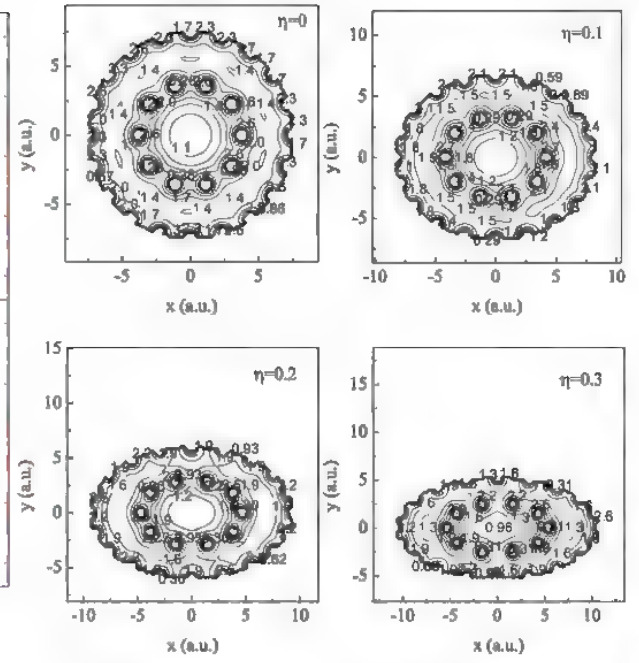
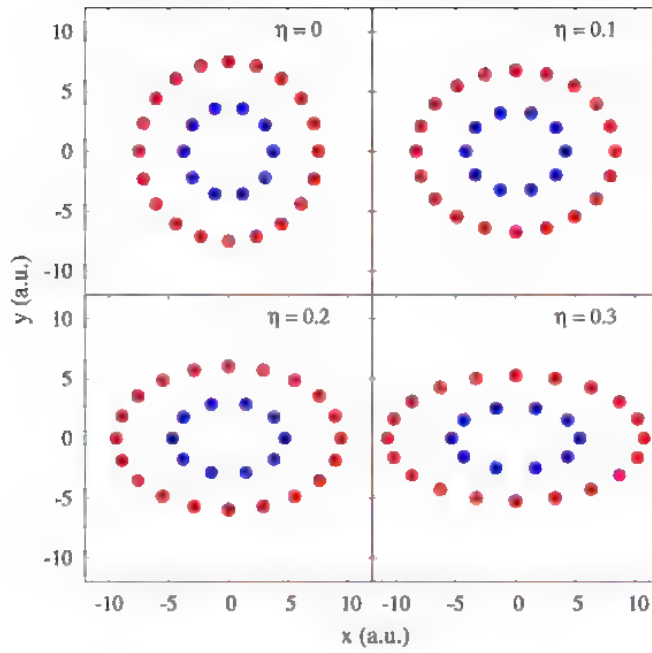
(b)

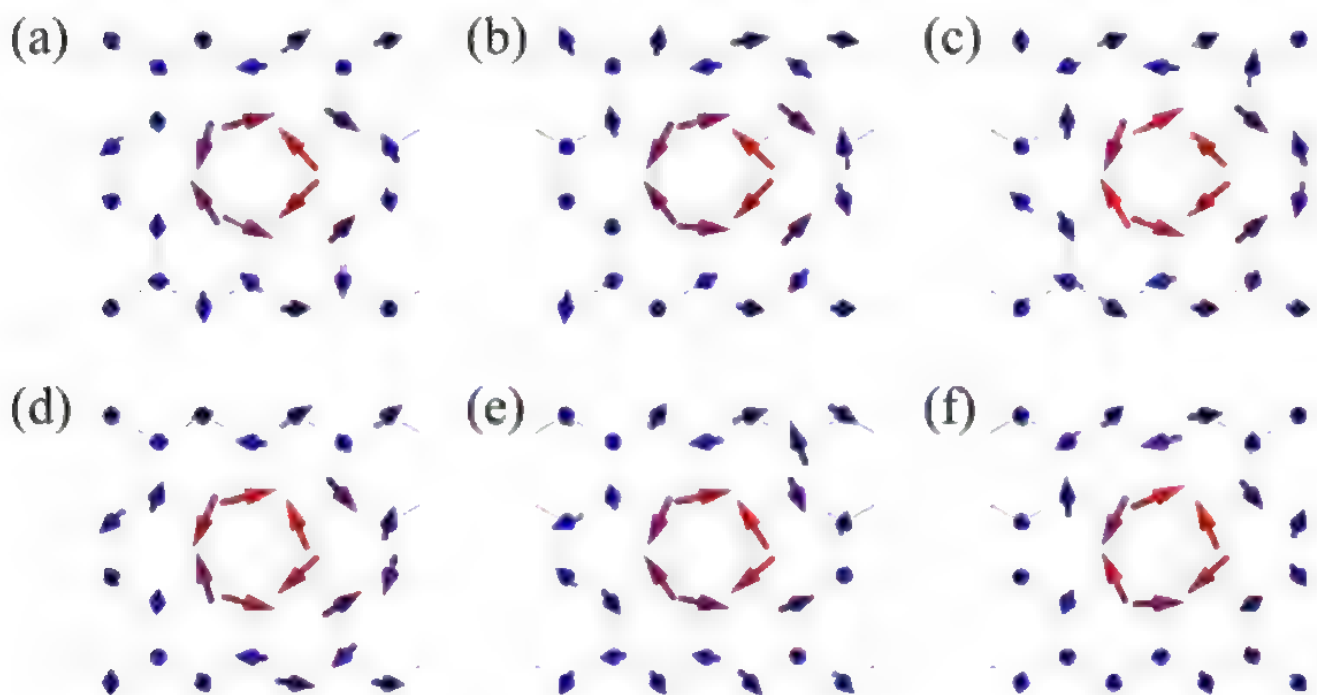
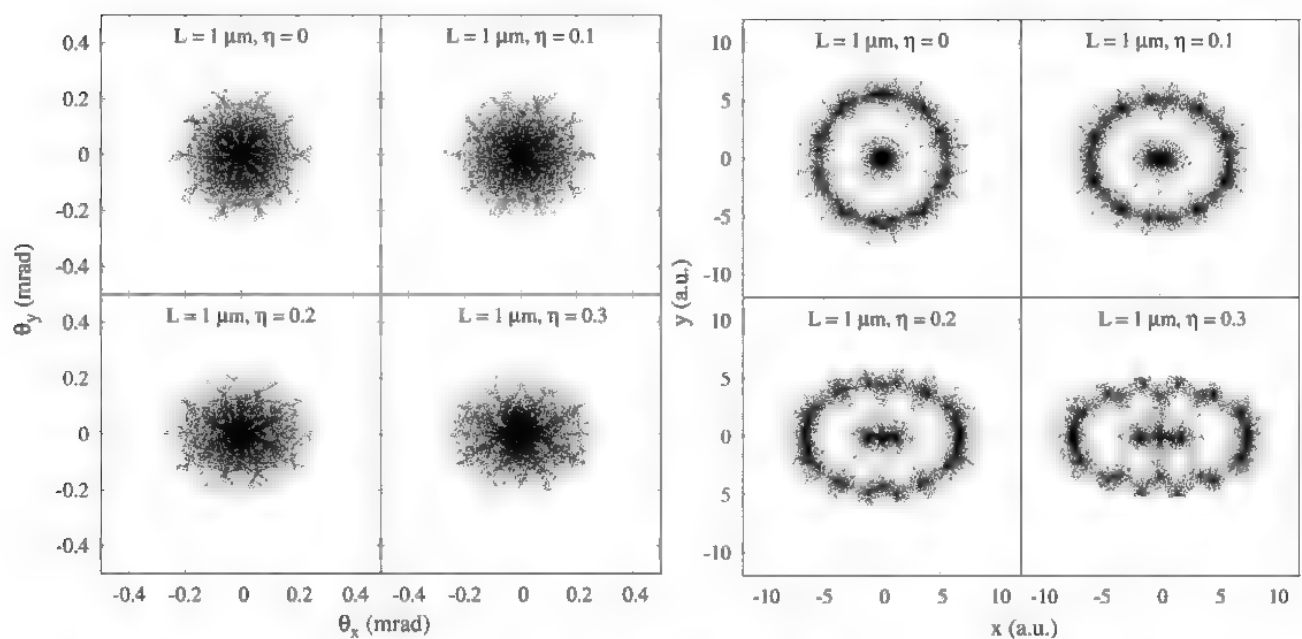
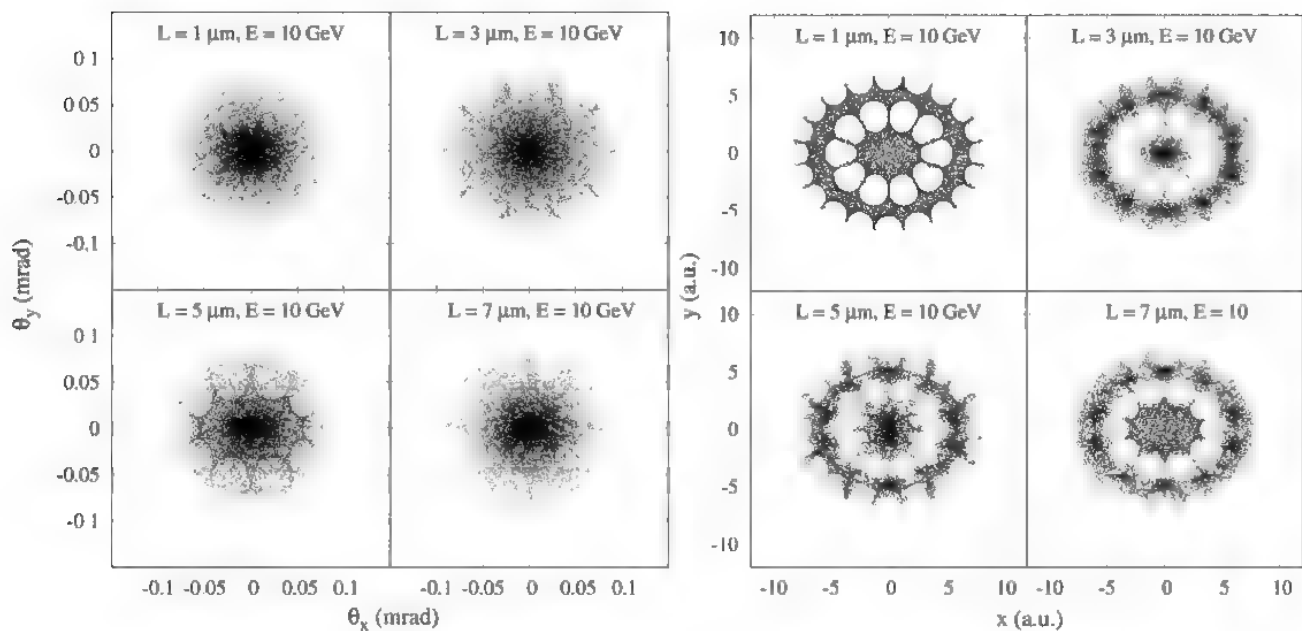




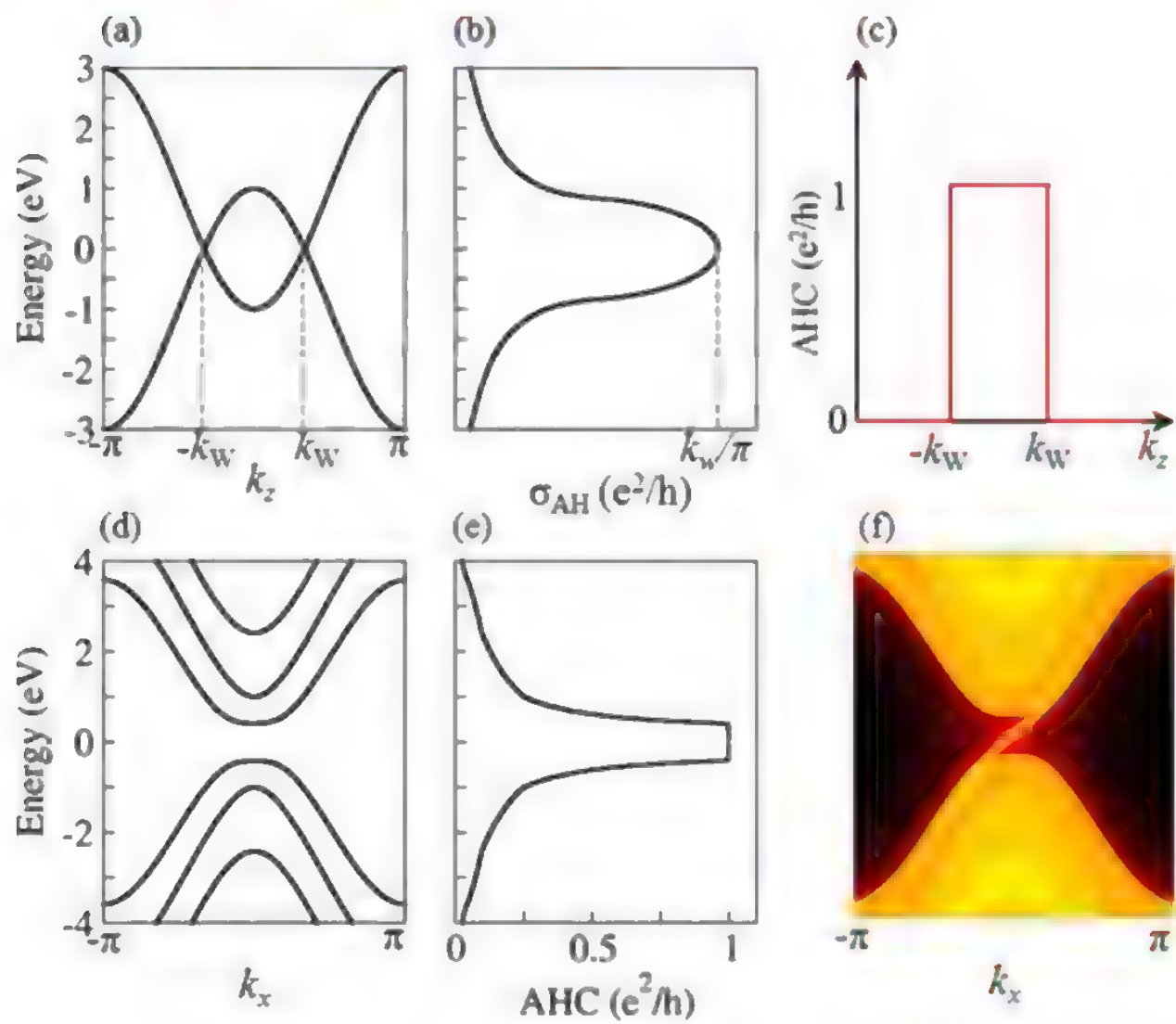
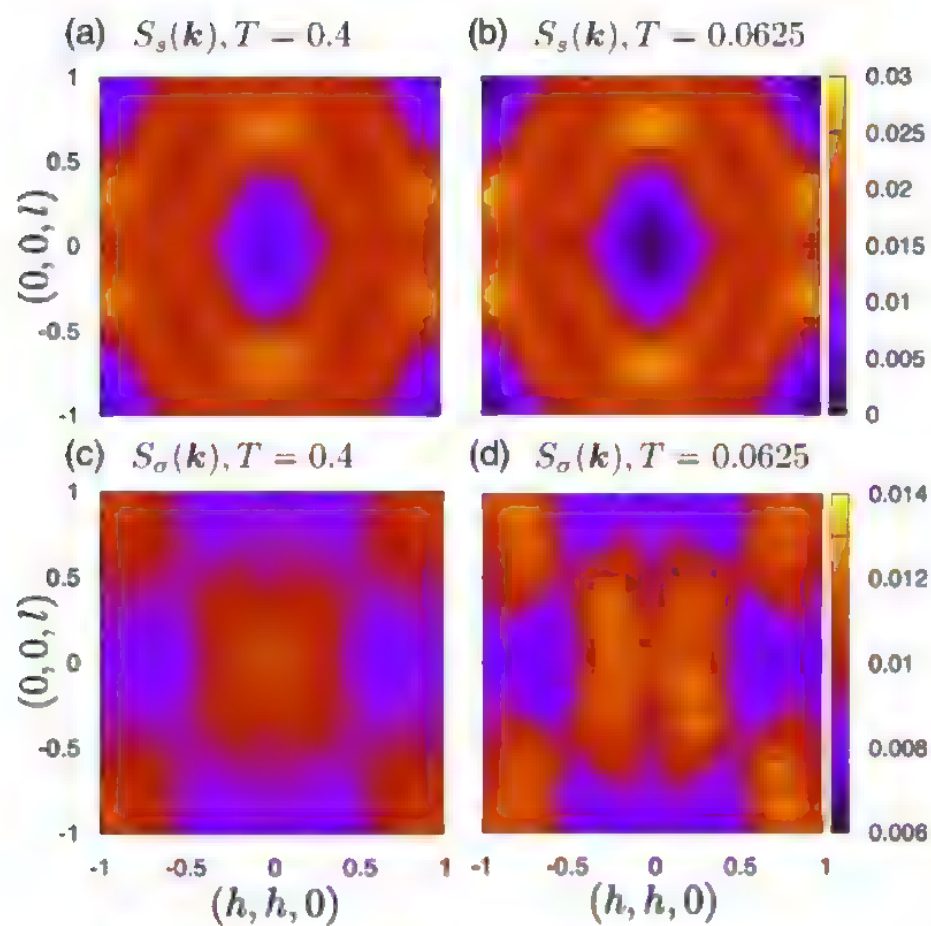




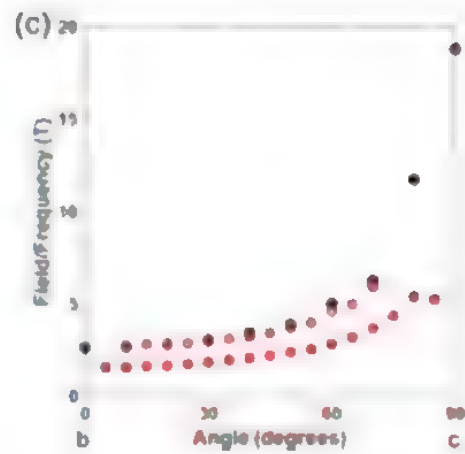
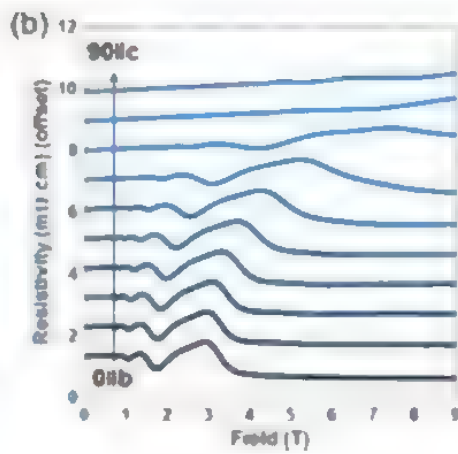
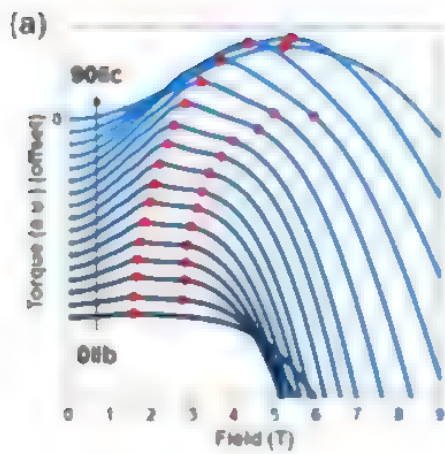
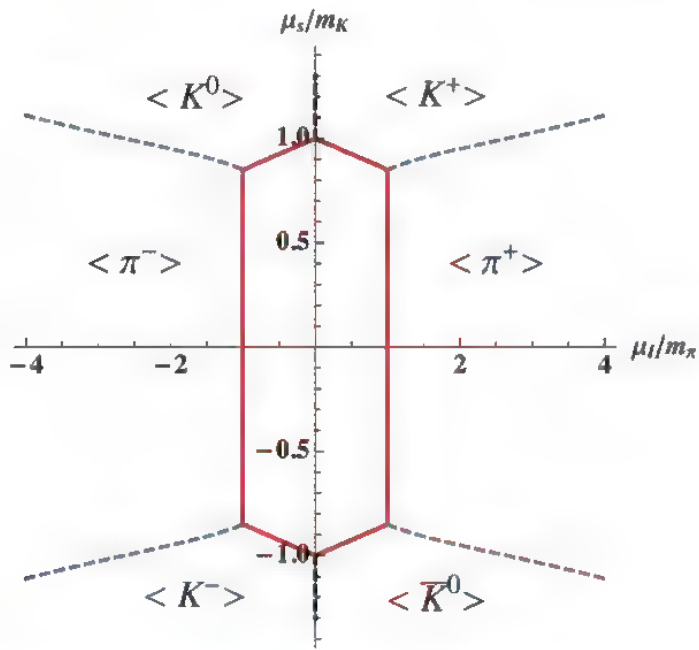
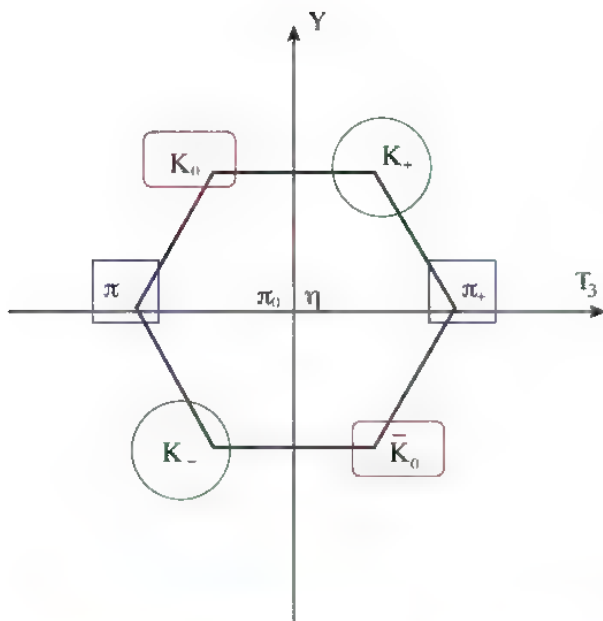
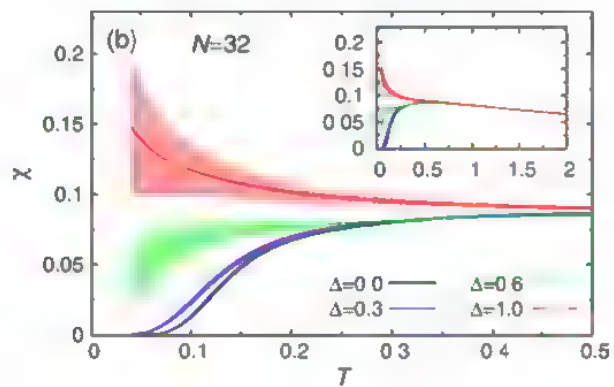
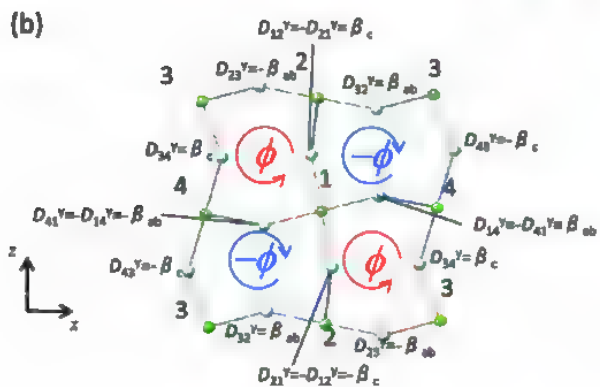
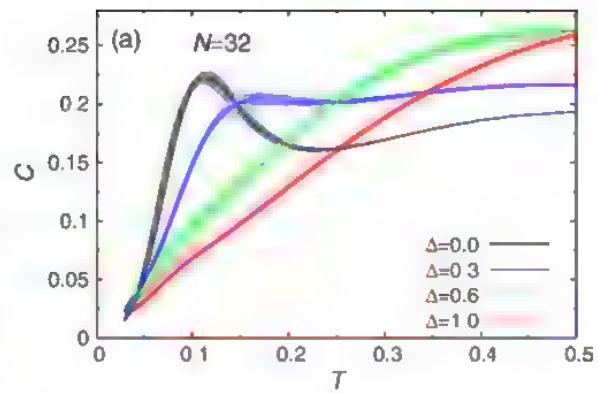
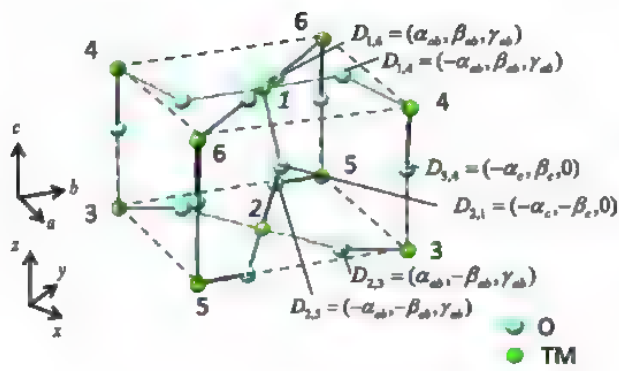


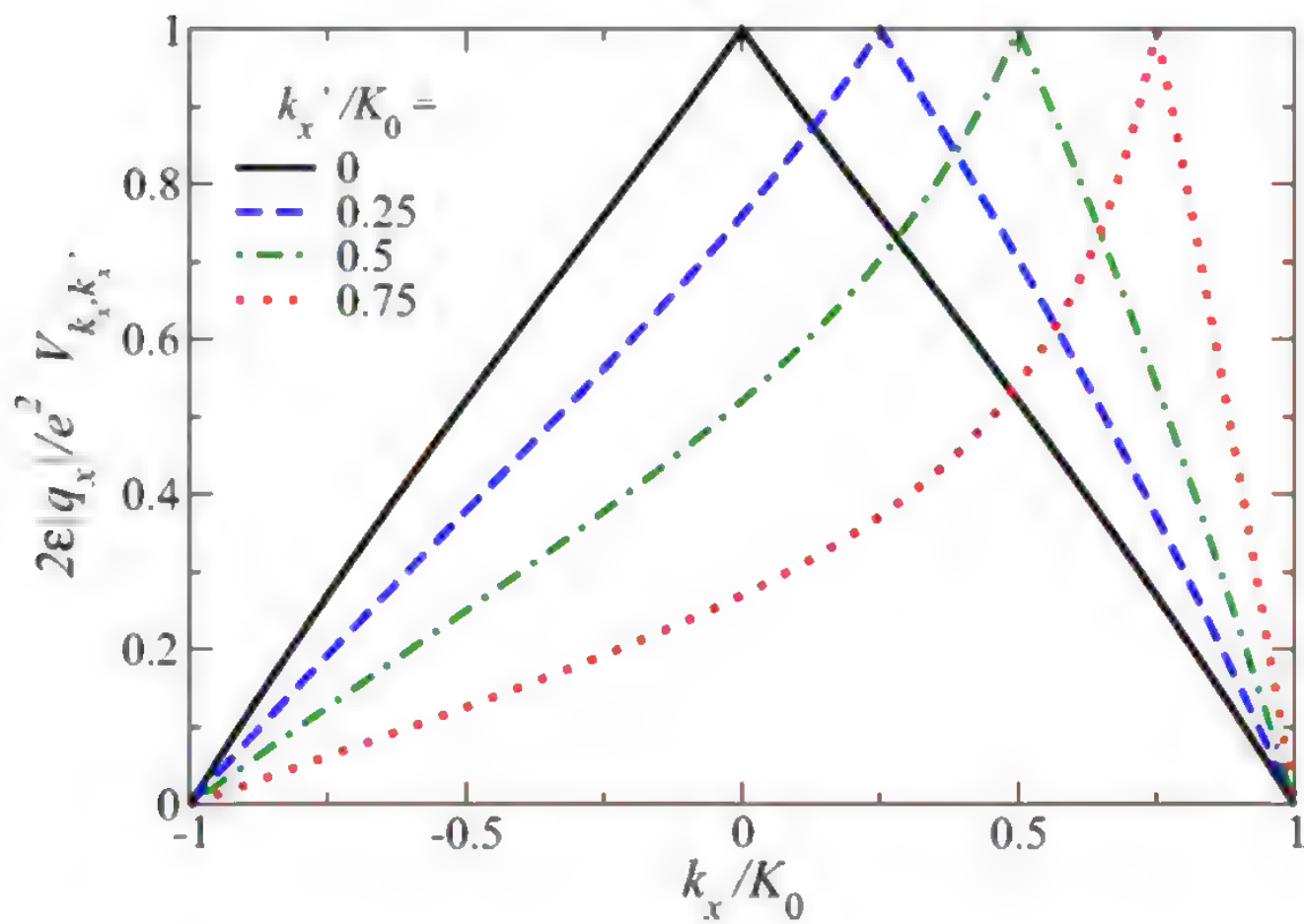
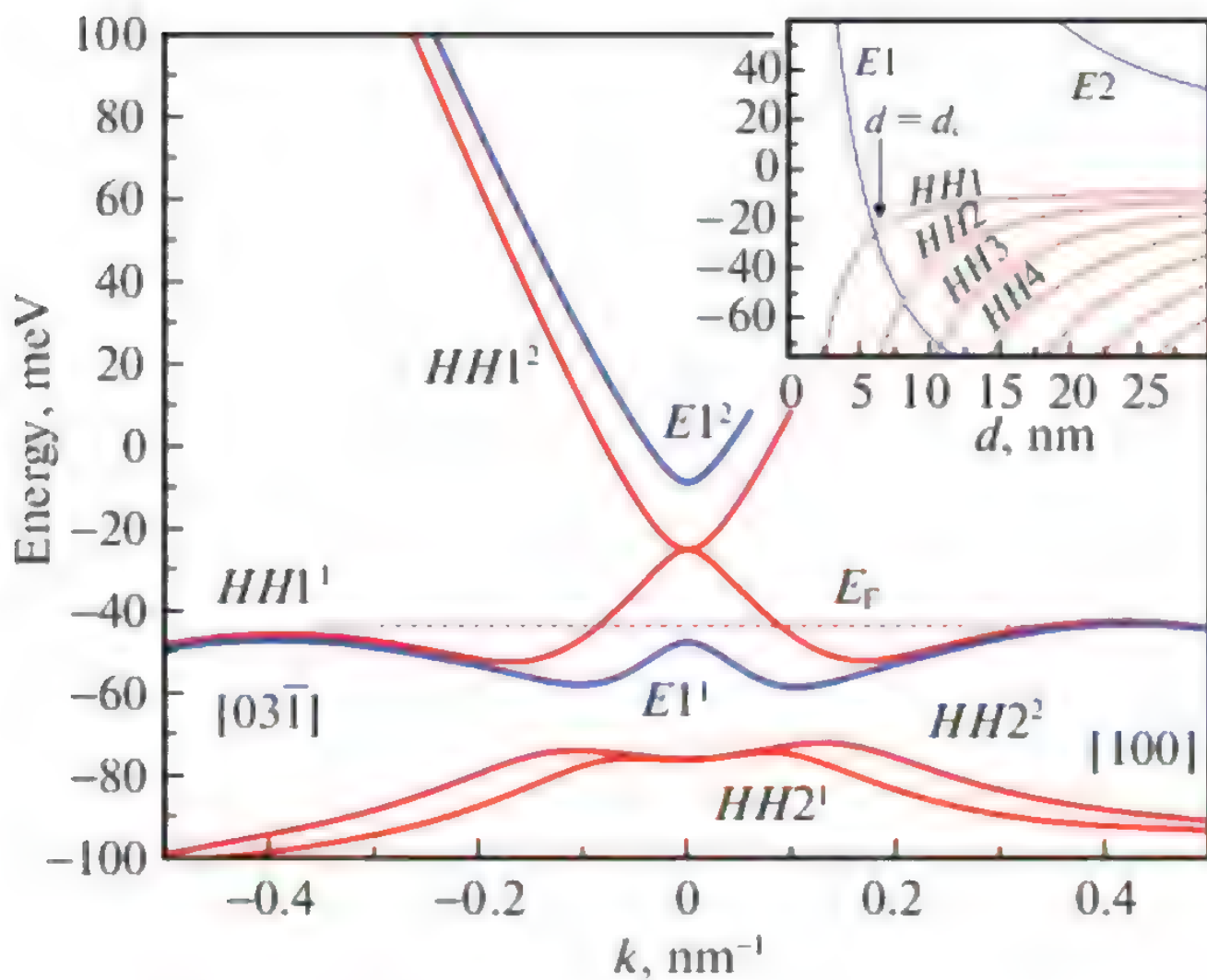


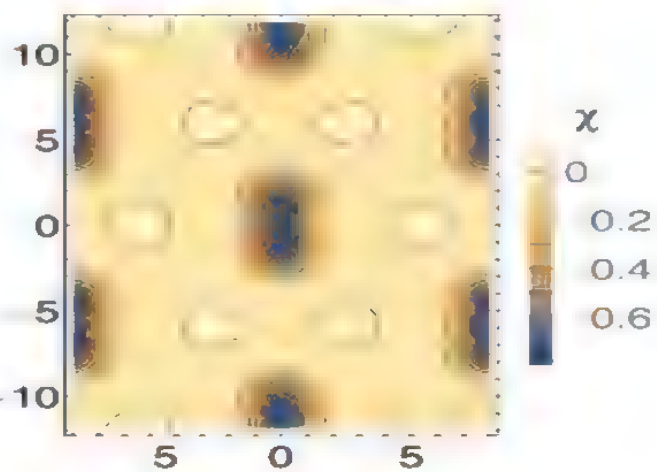
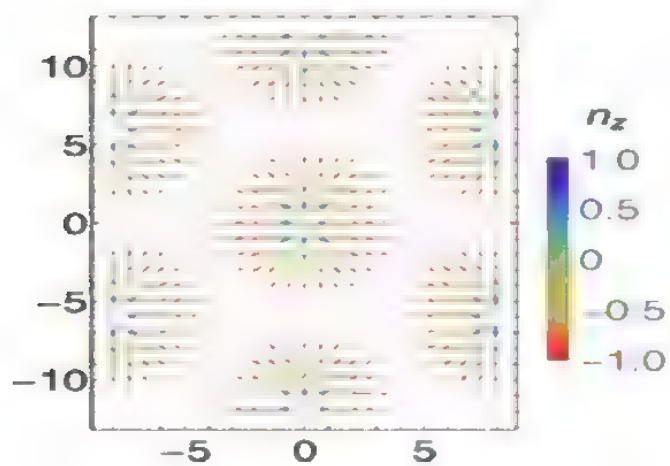
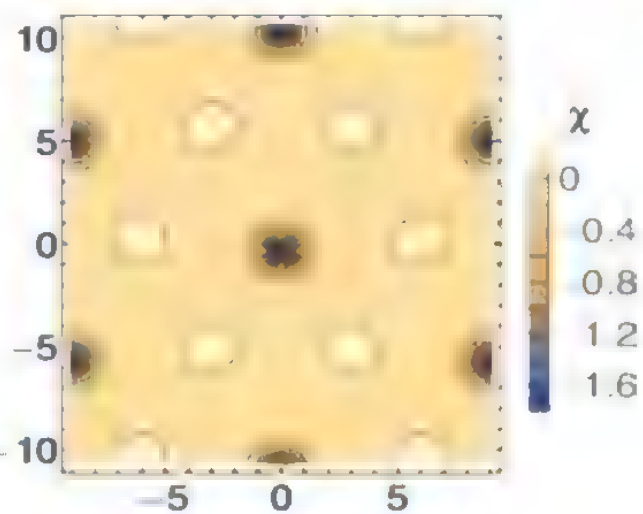
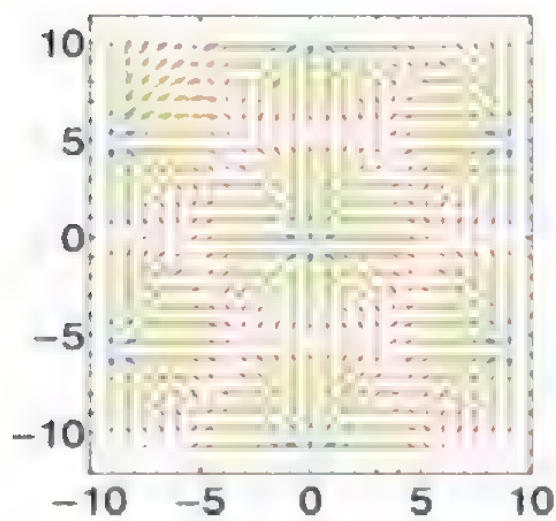
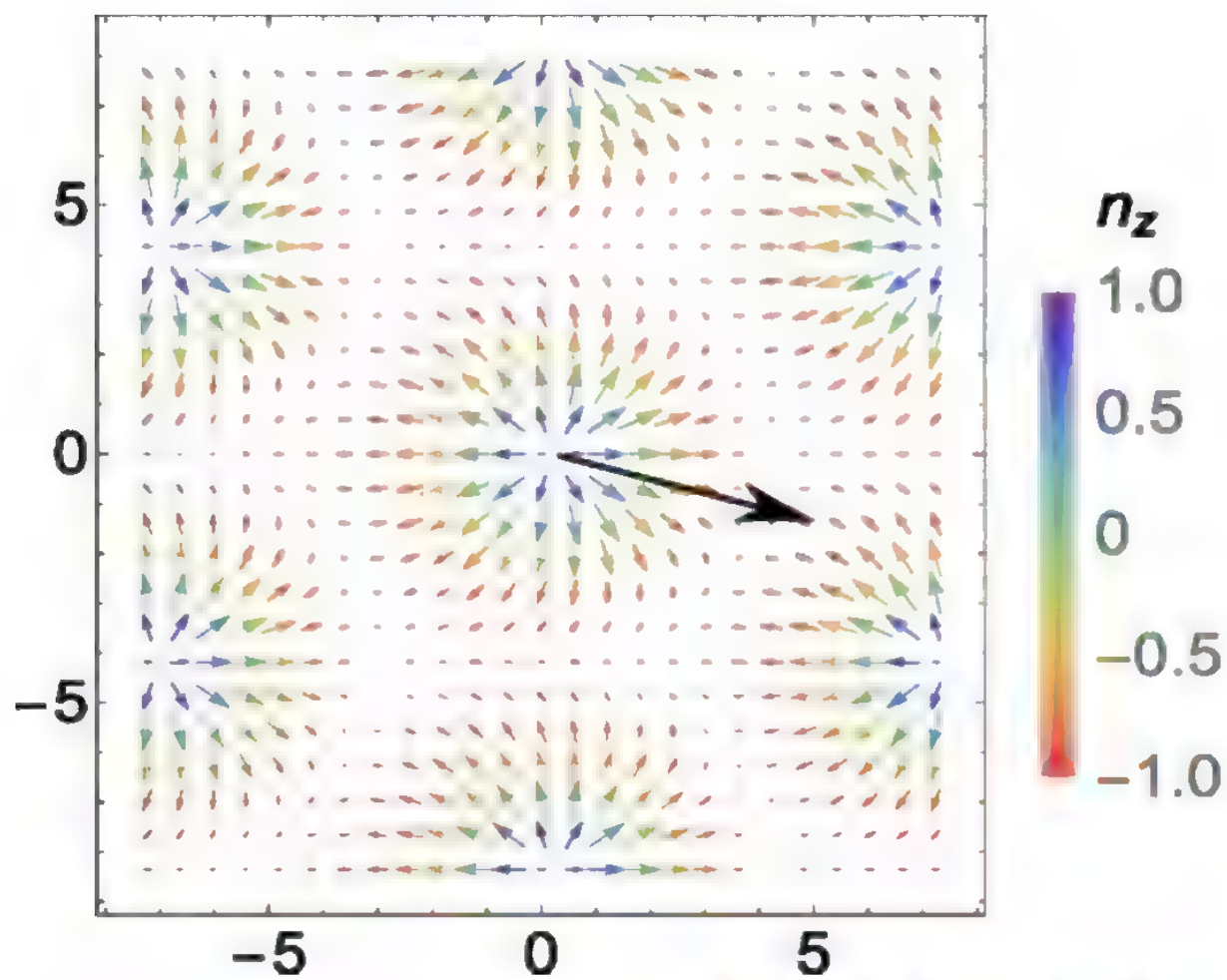




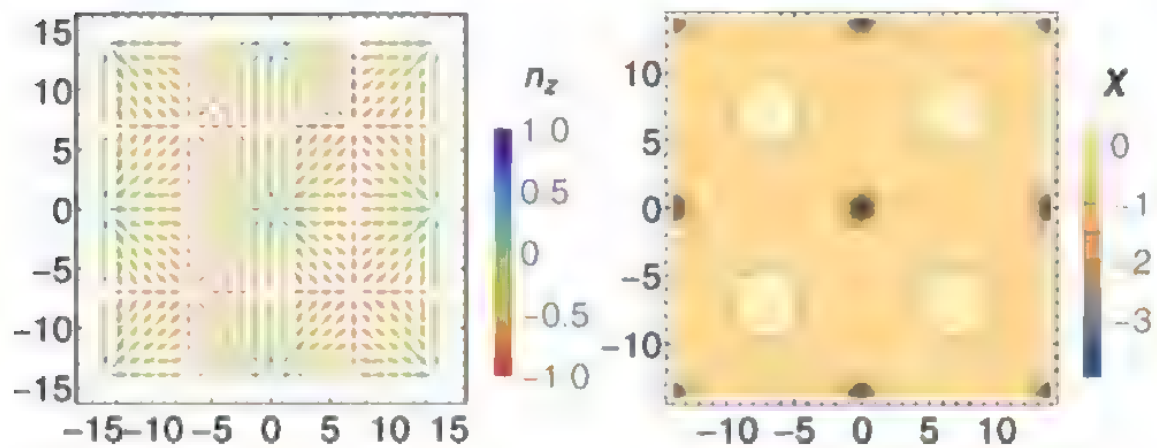
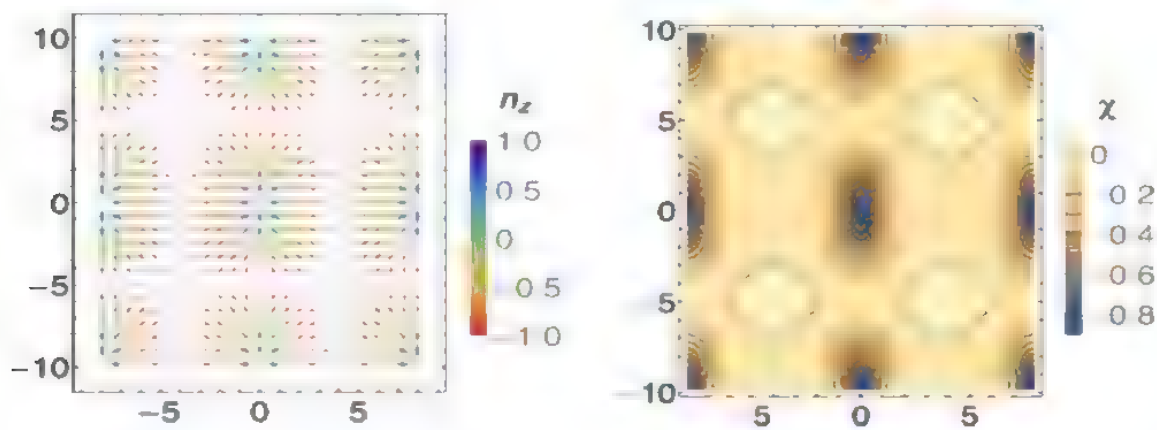
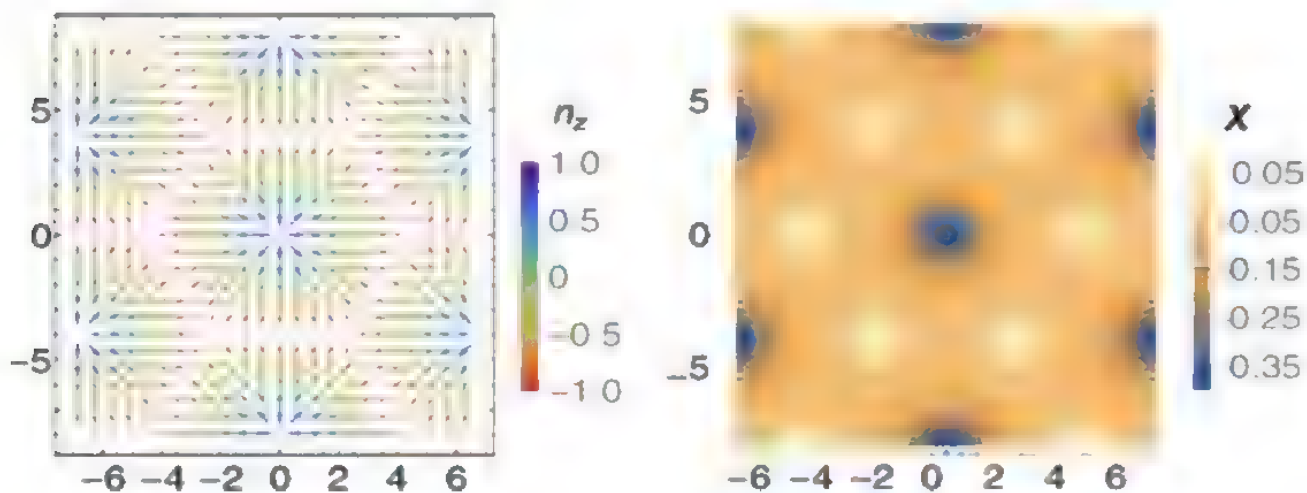
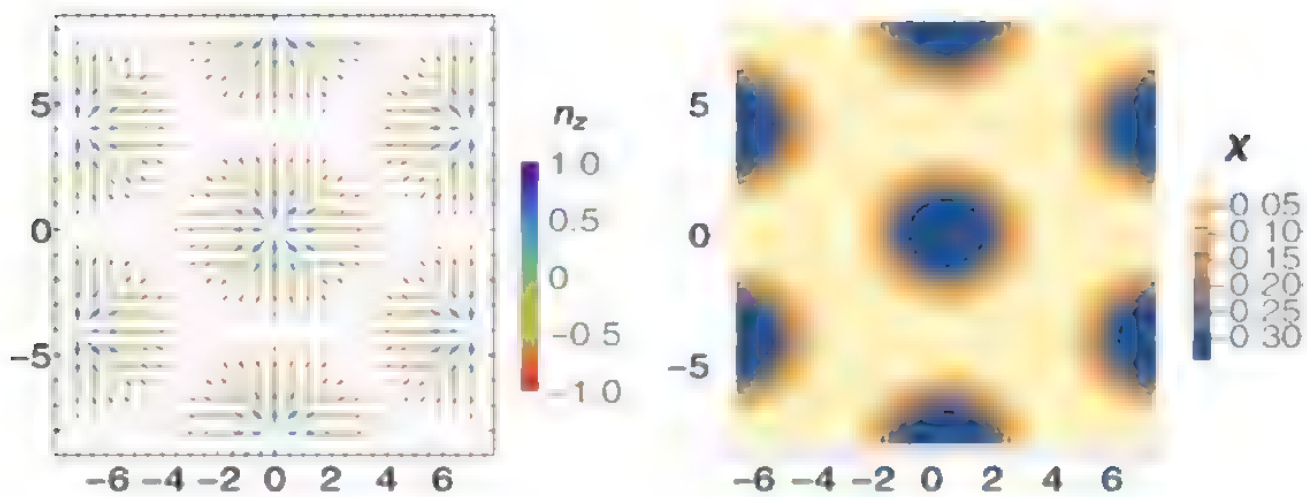
(a)

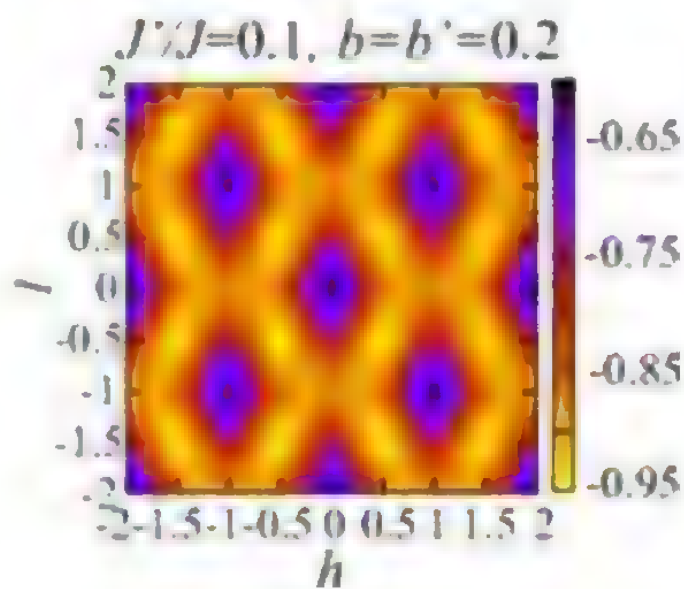
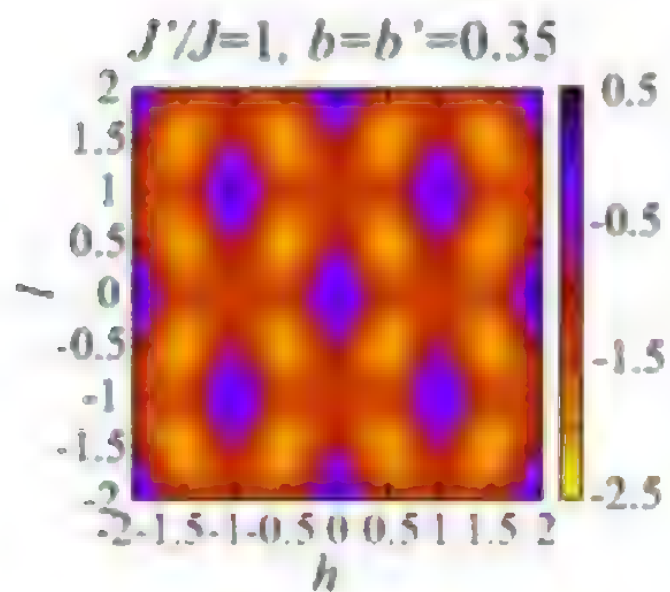
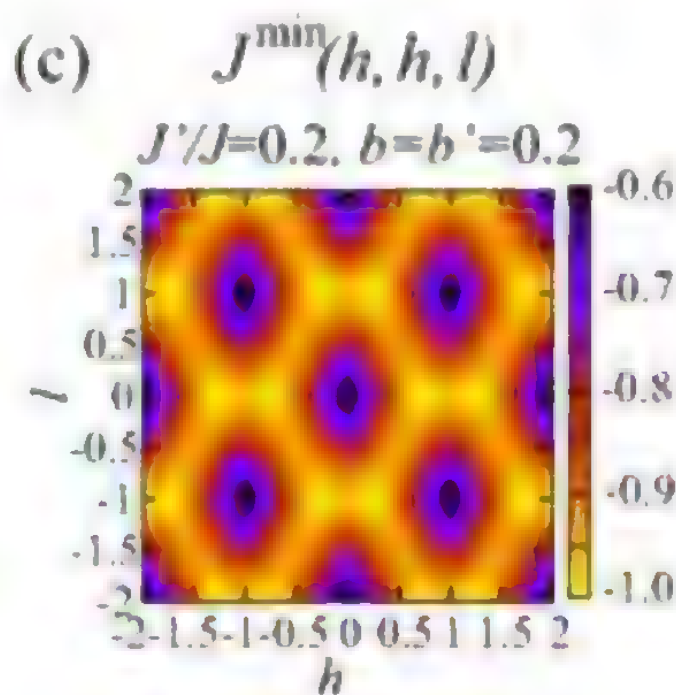
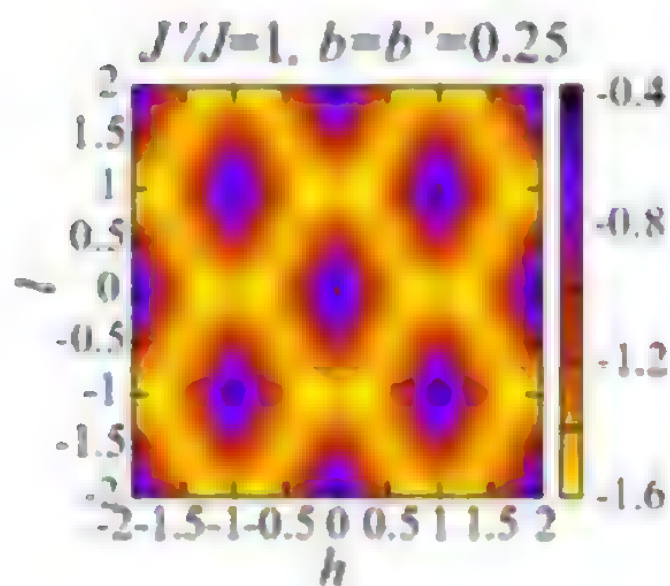
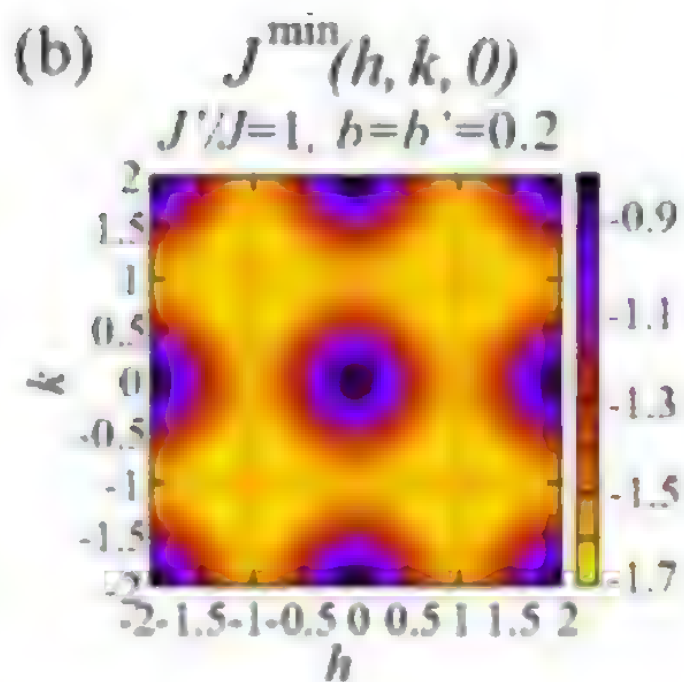
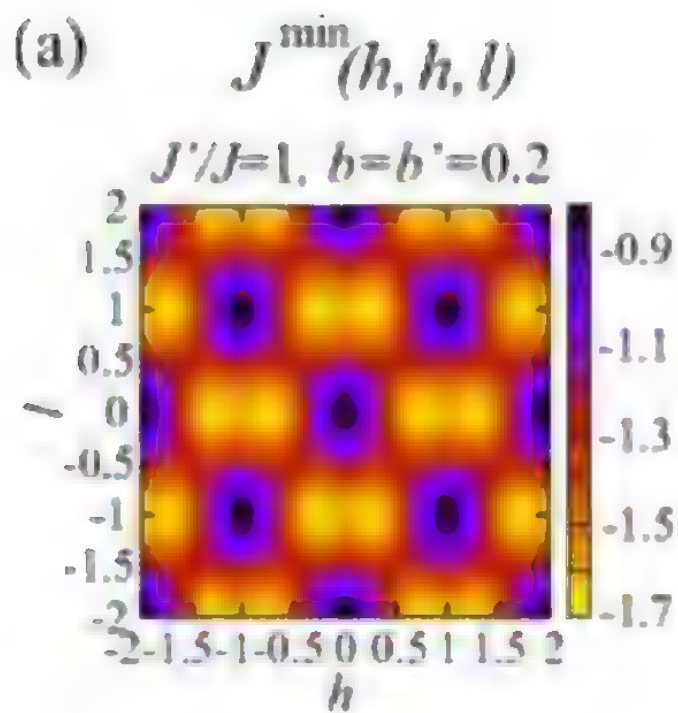


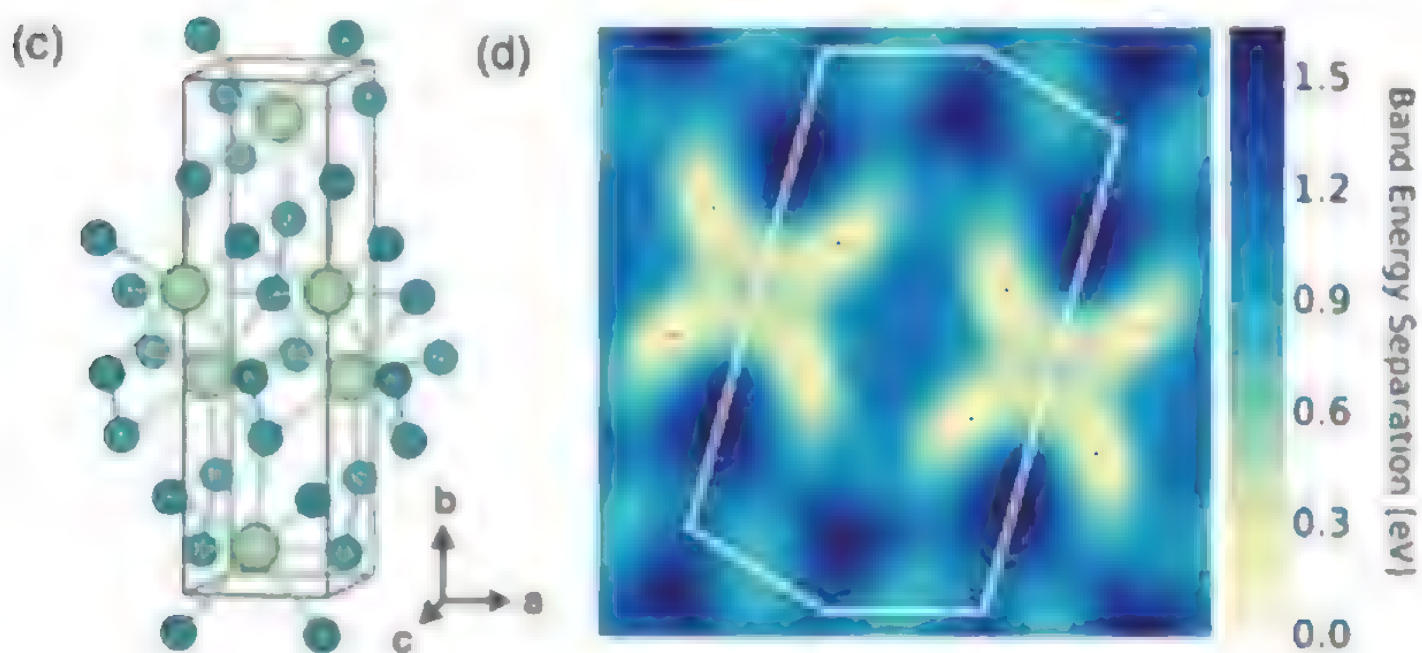
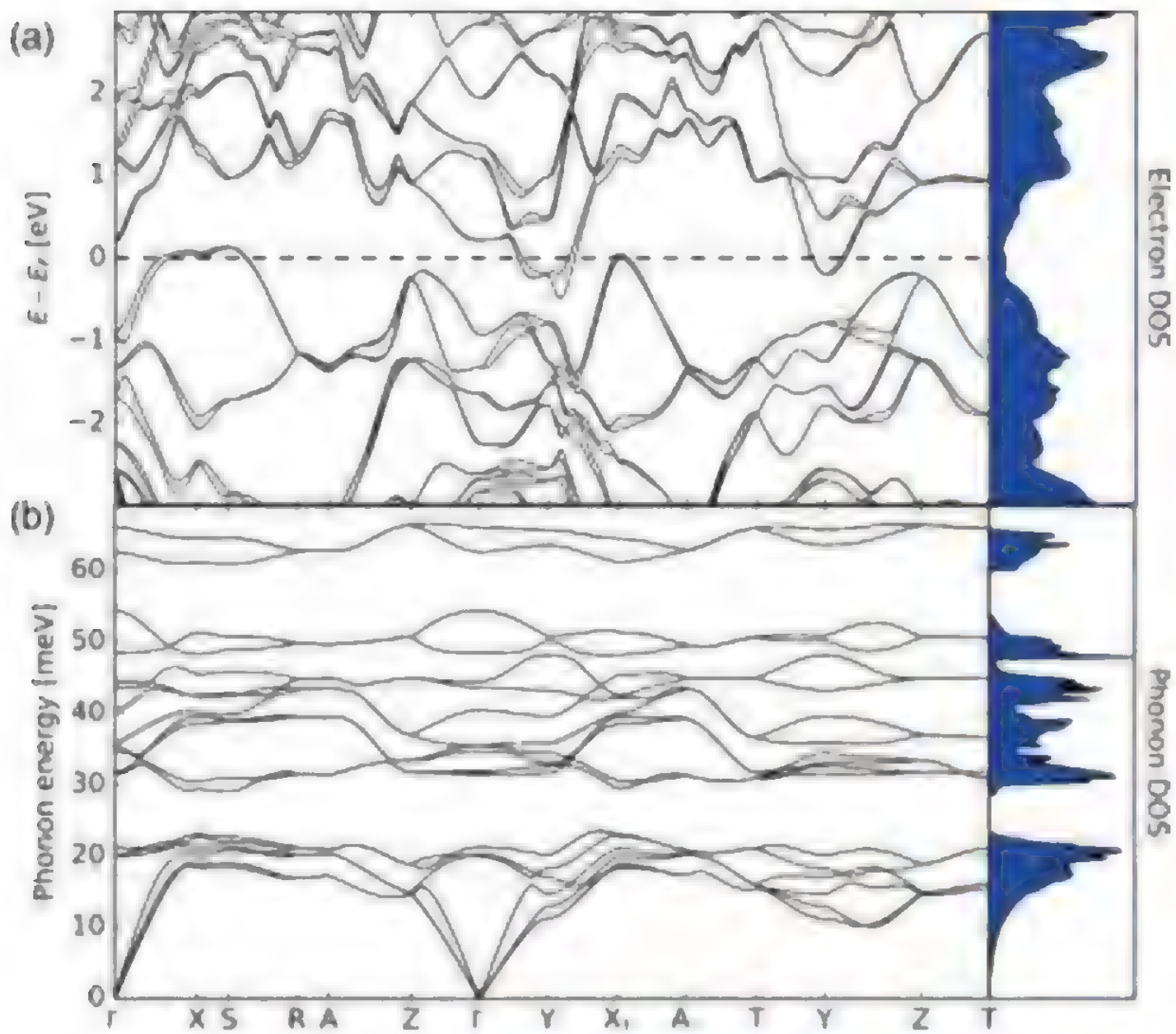




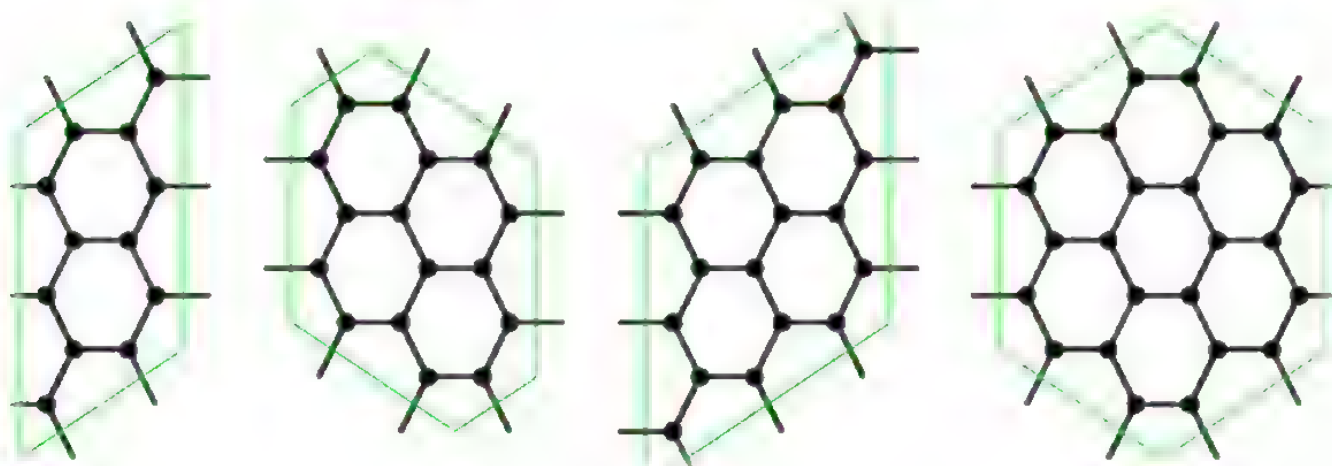
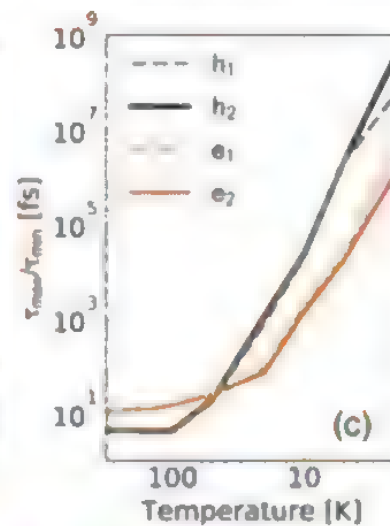
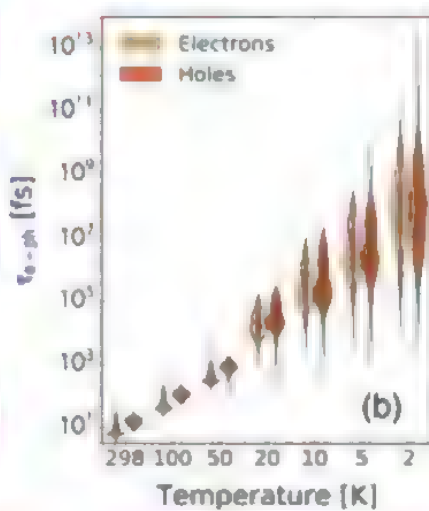
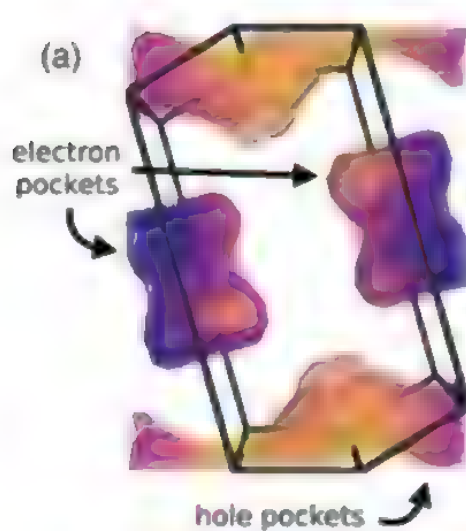
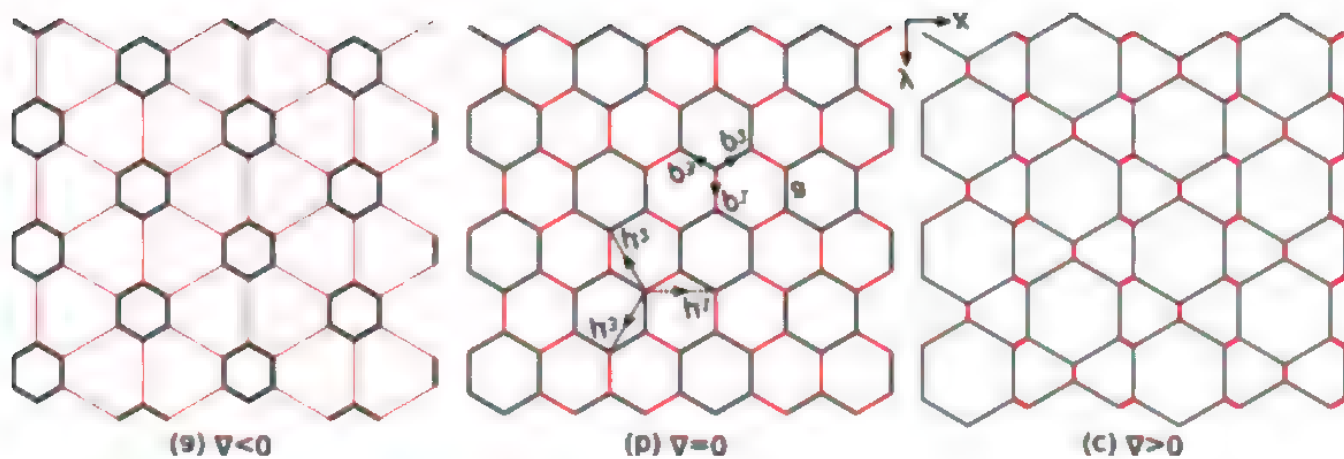














(a)



$5e-12$  s

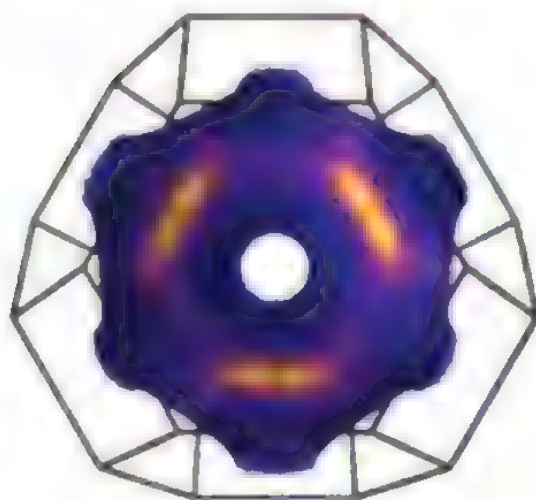
$1e-8$  s



$6e-11$  s

$2e-5$  s

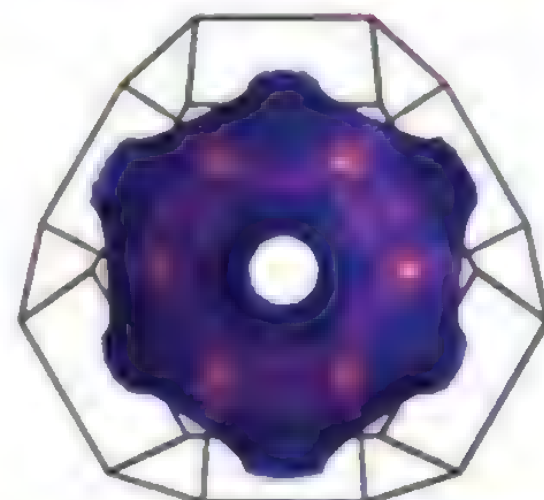
(b)



$4e-10$  s

$4e-8$  s

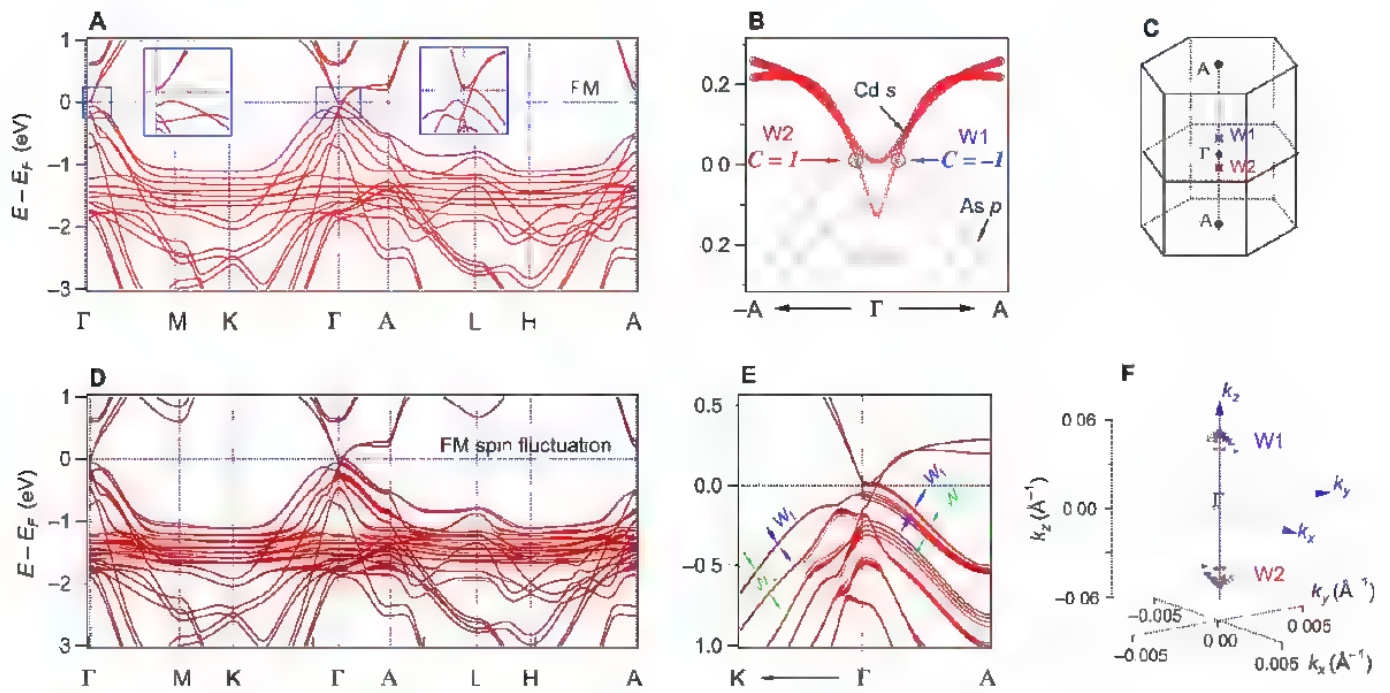
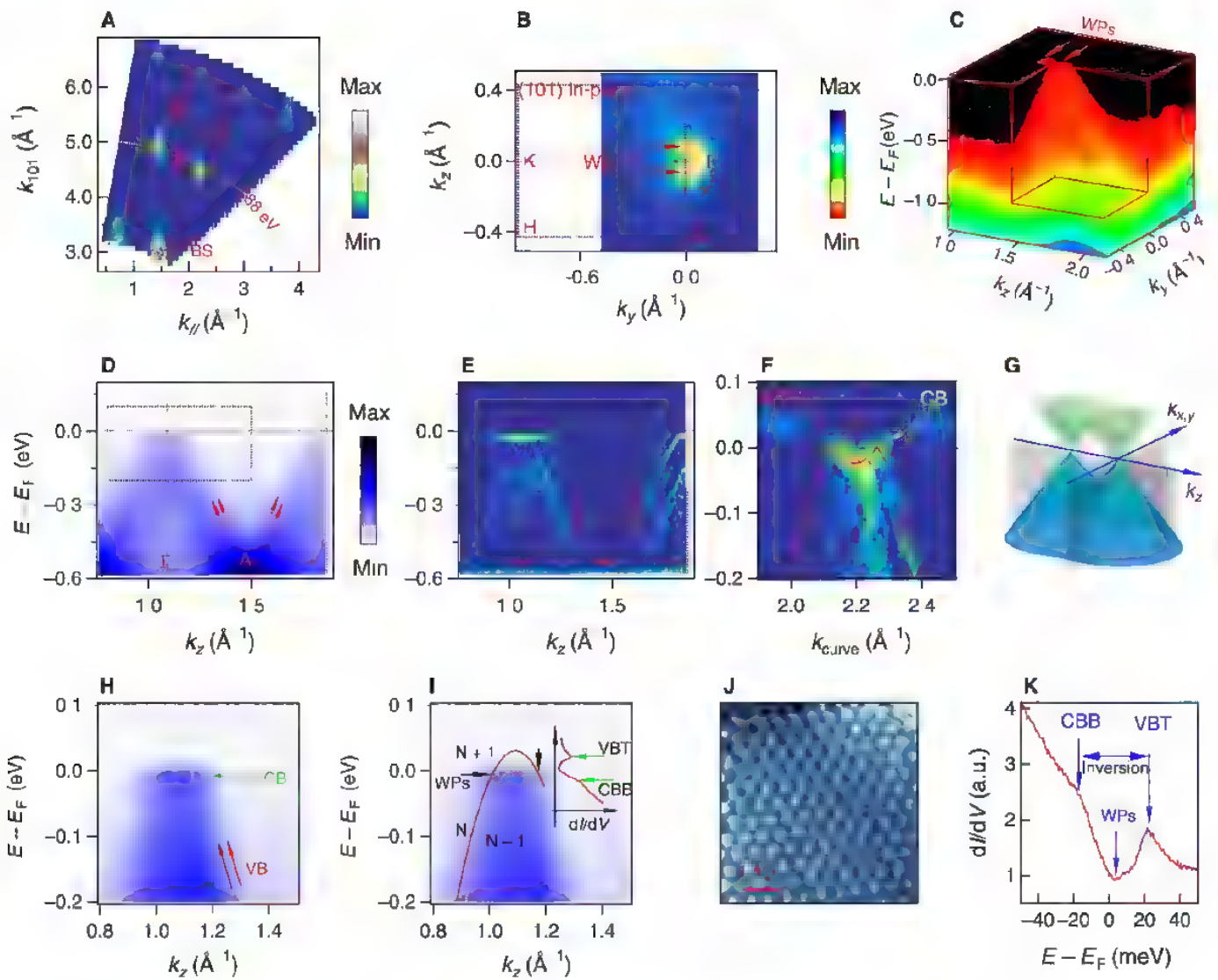
10K

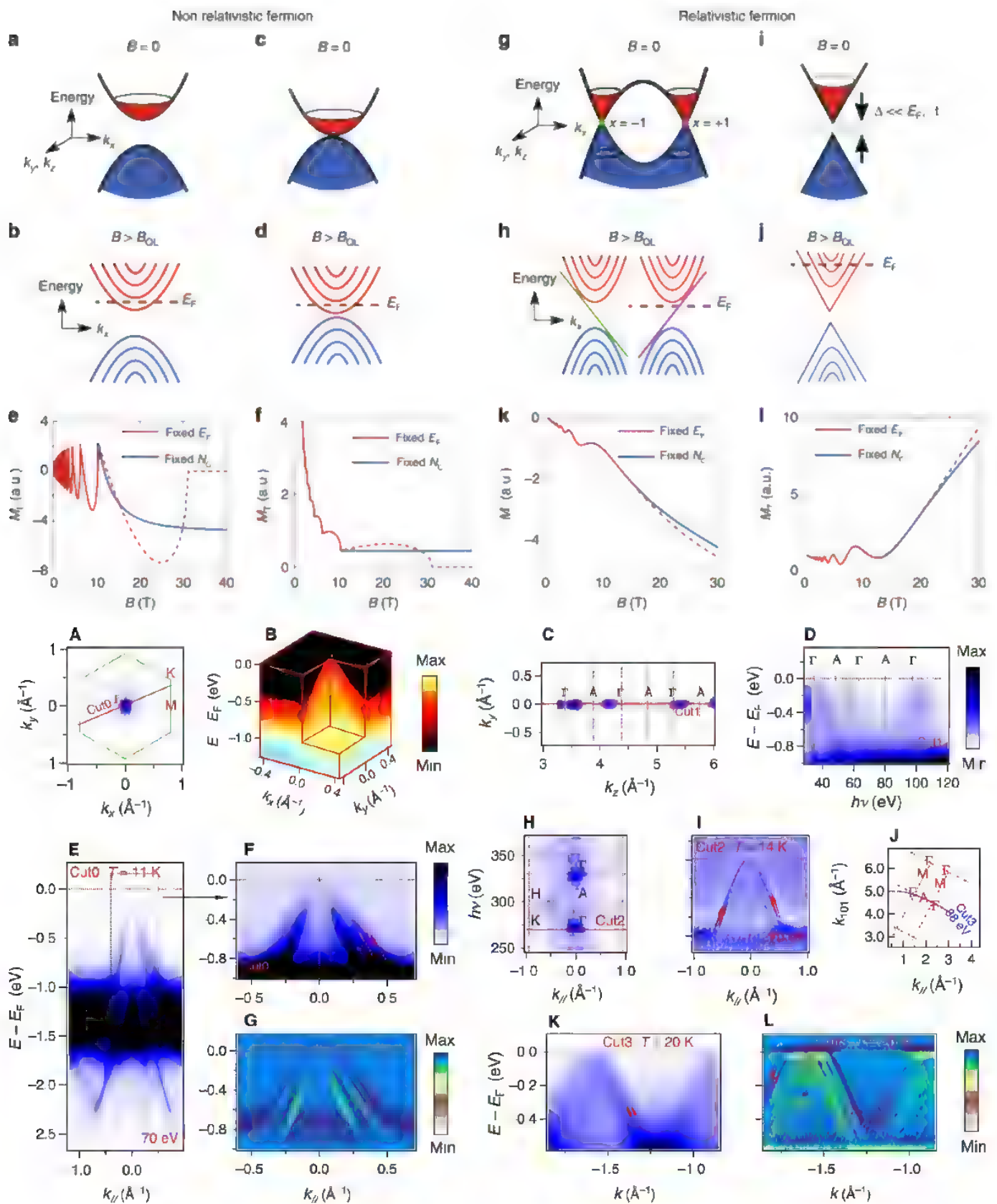


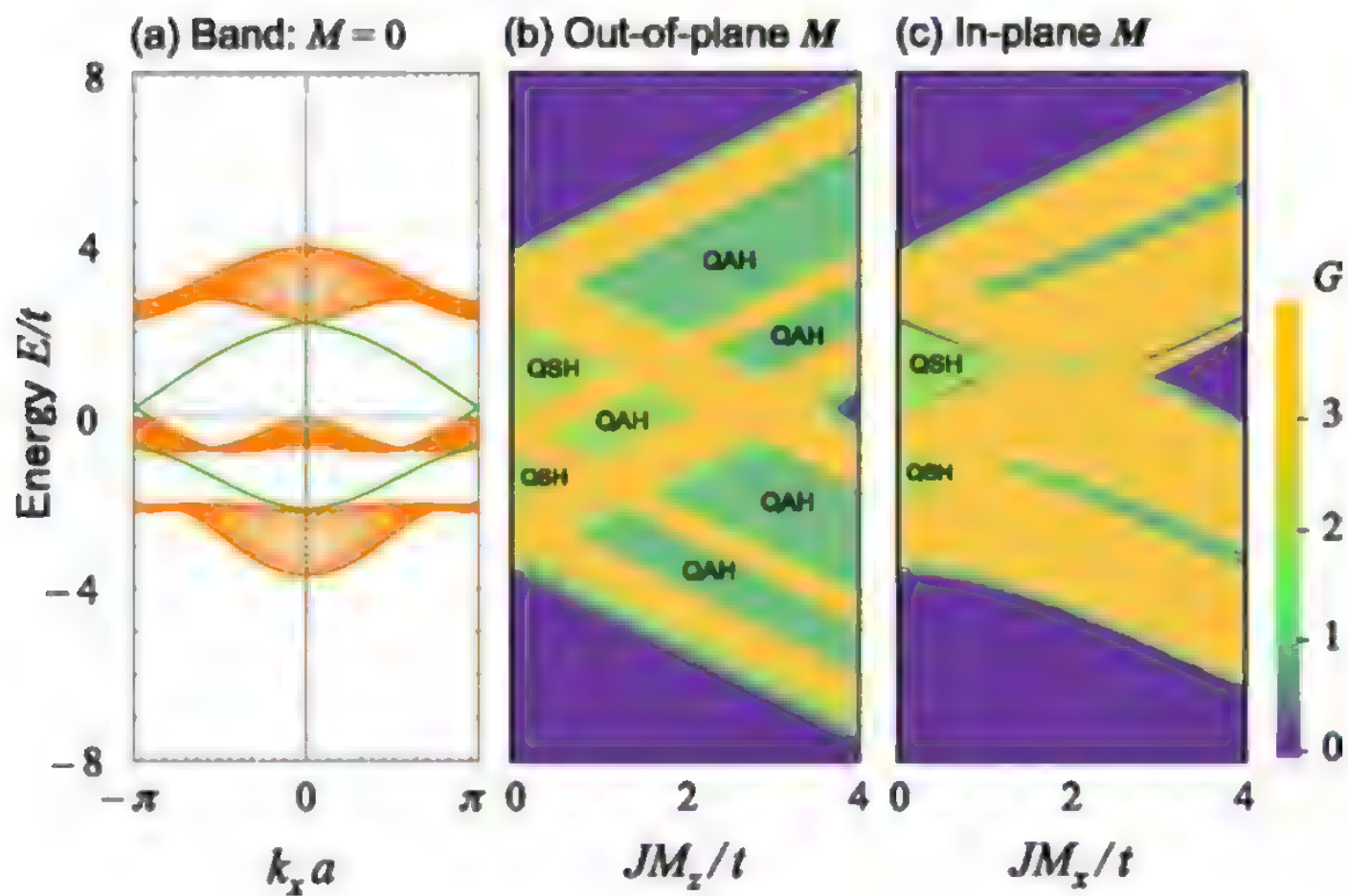
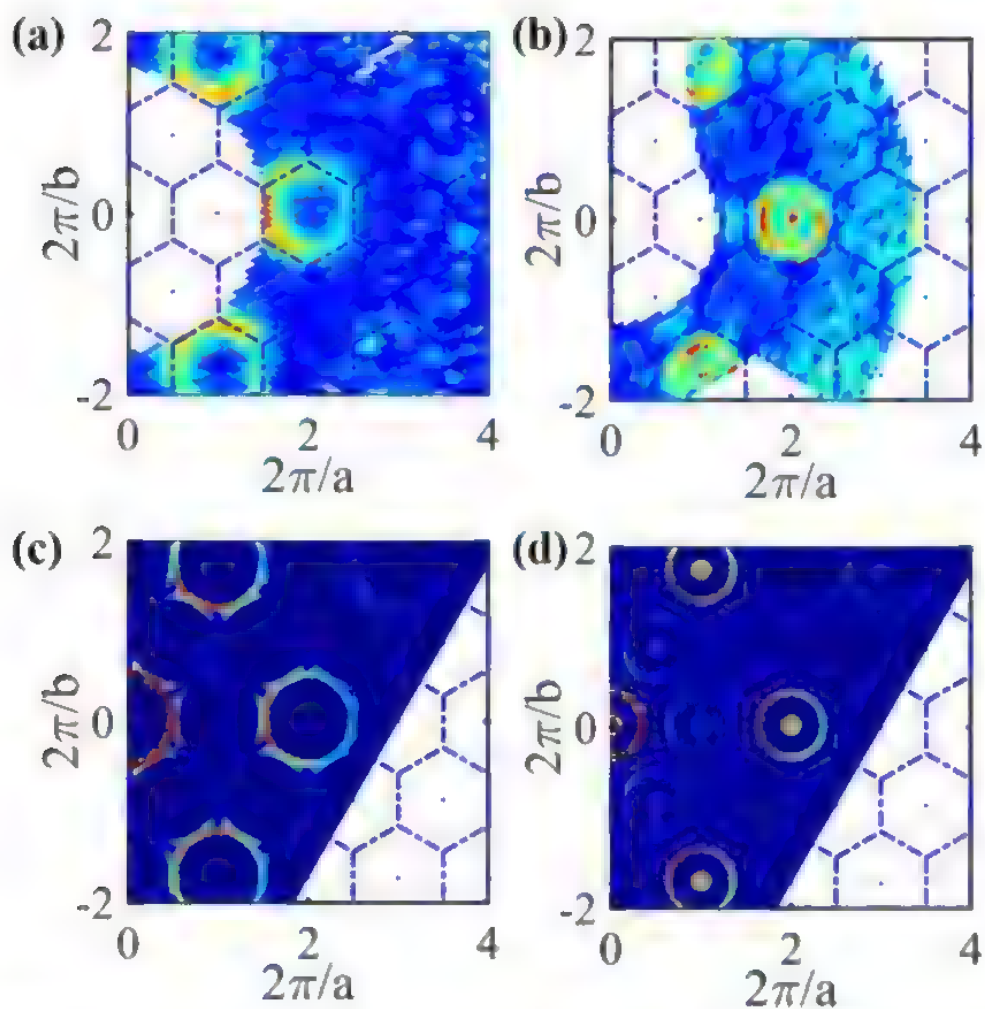
$2e-7$  s

$3e-5$  s

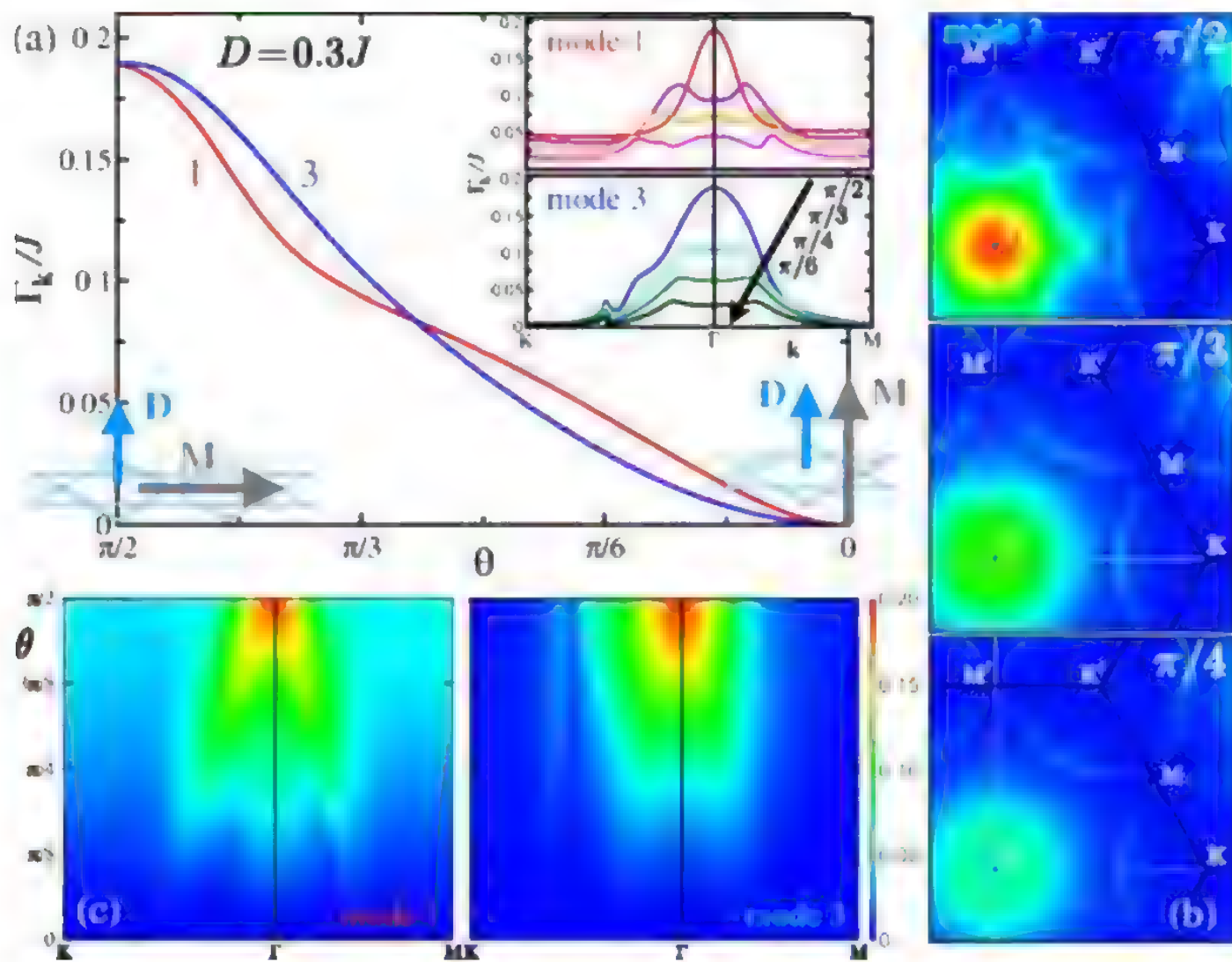
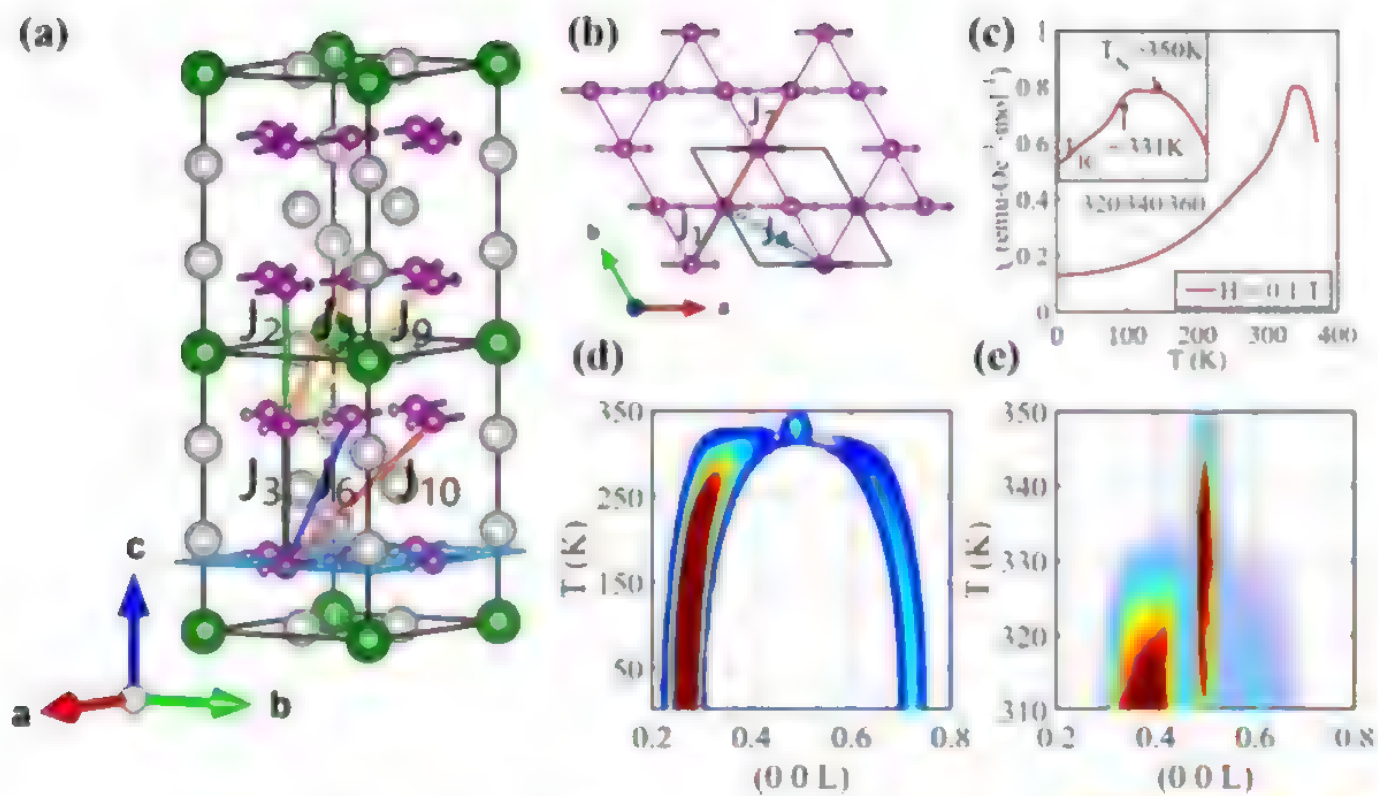
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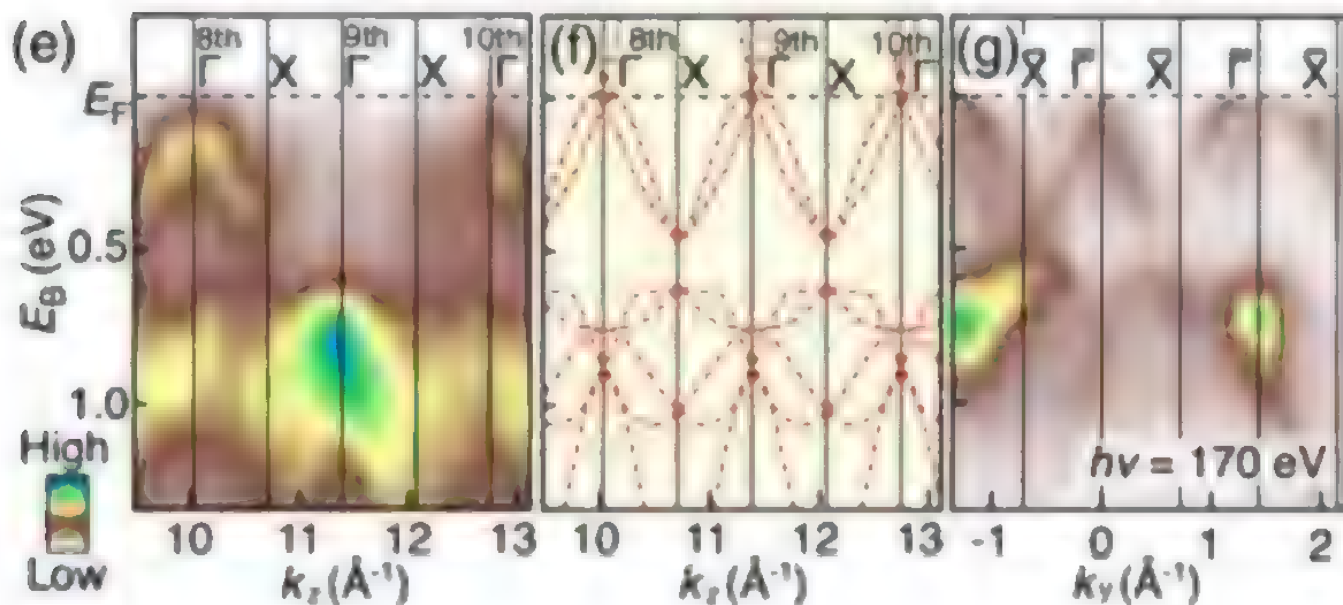
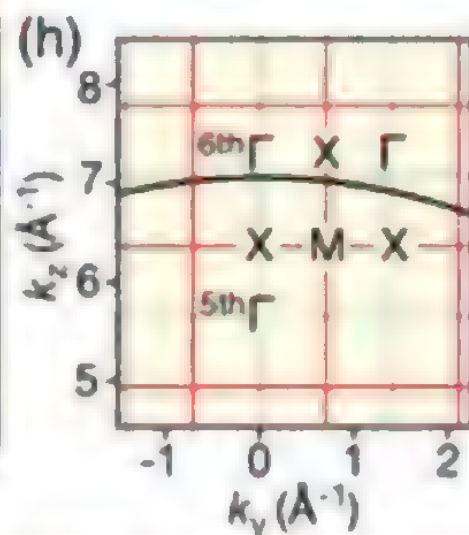
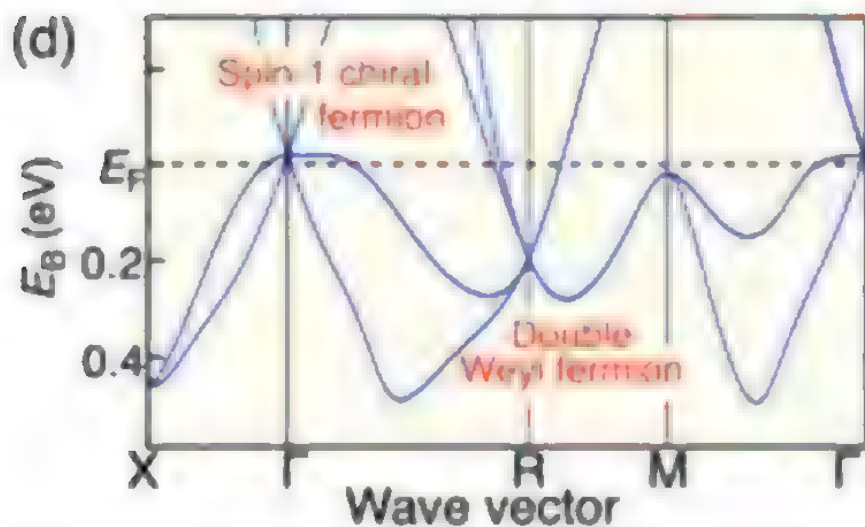
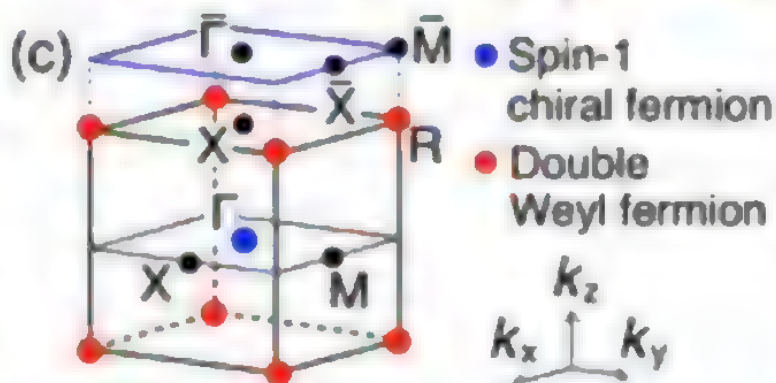
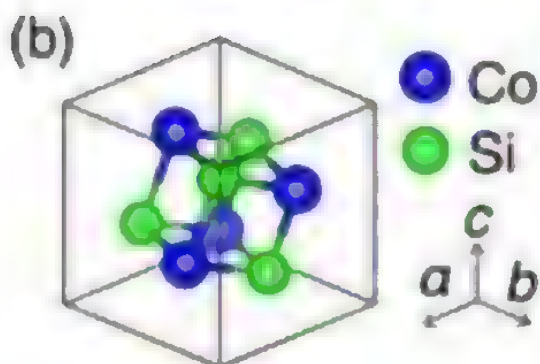
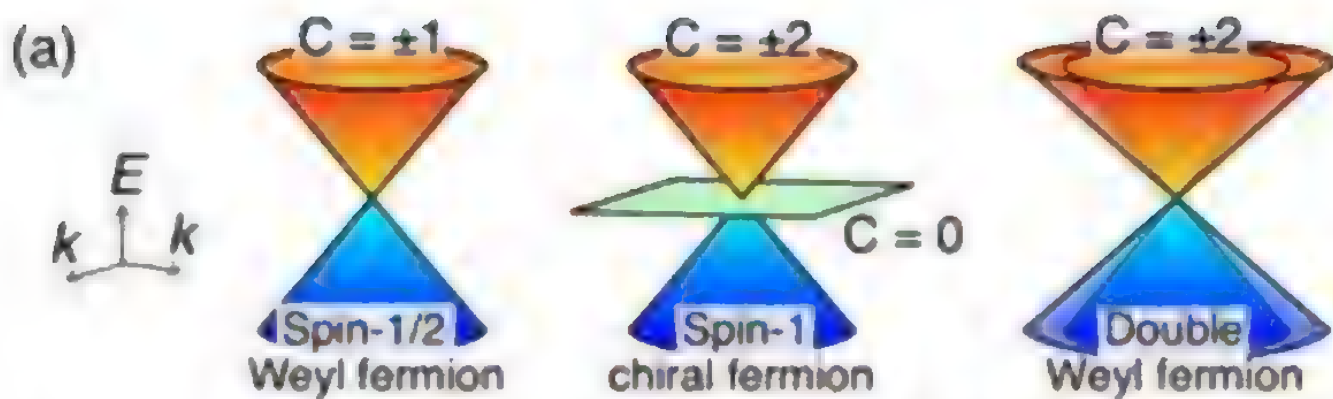


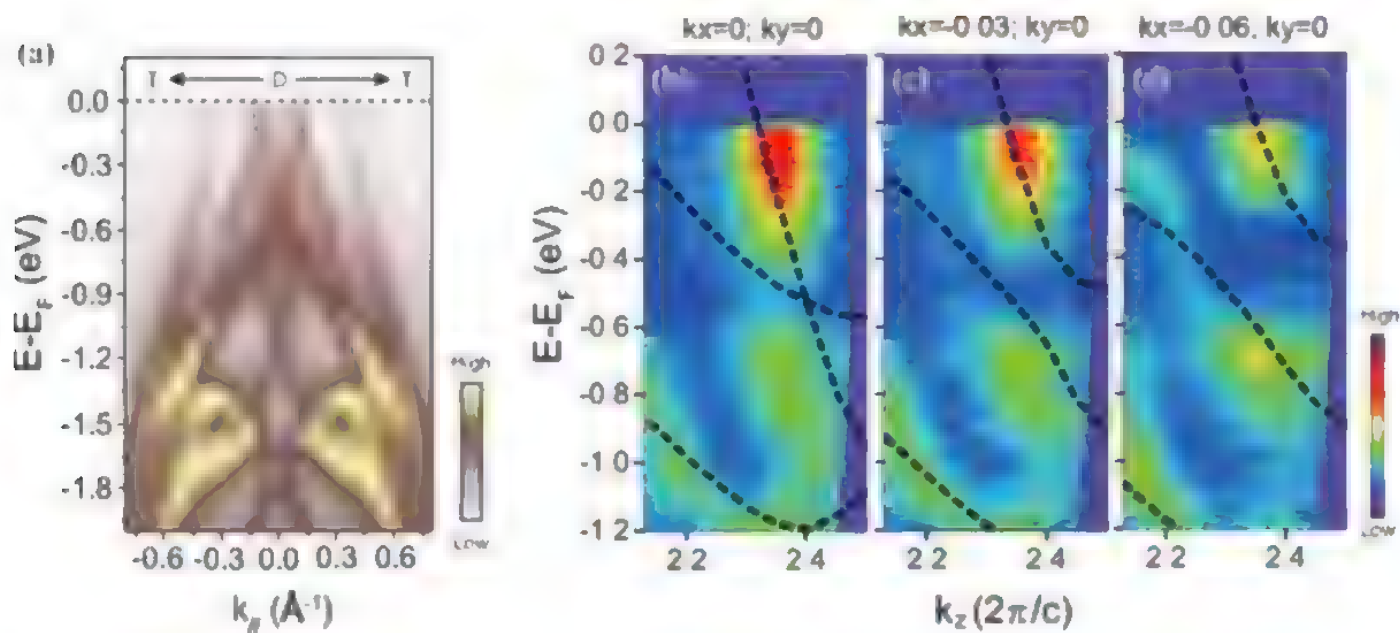
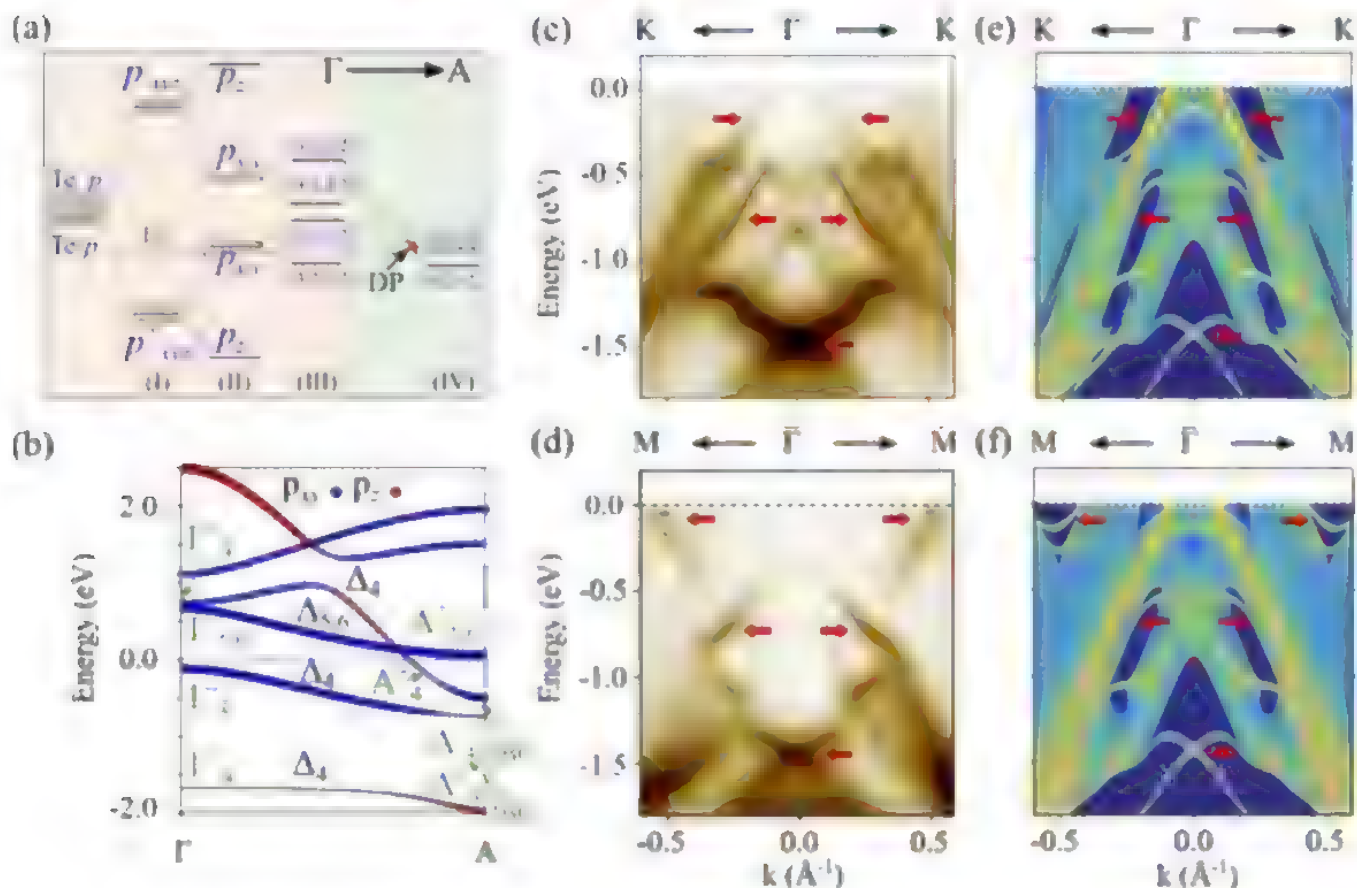
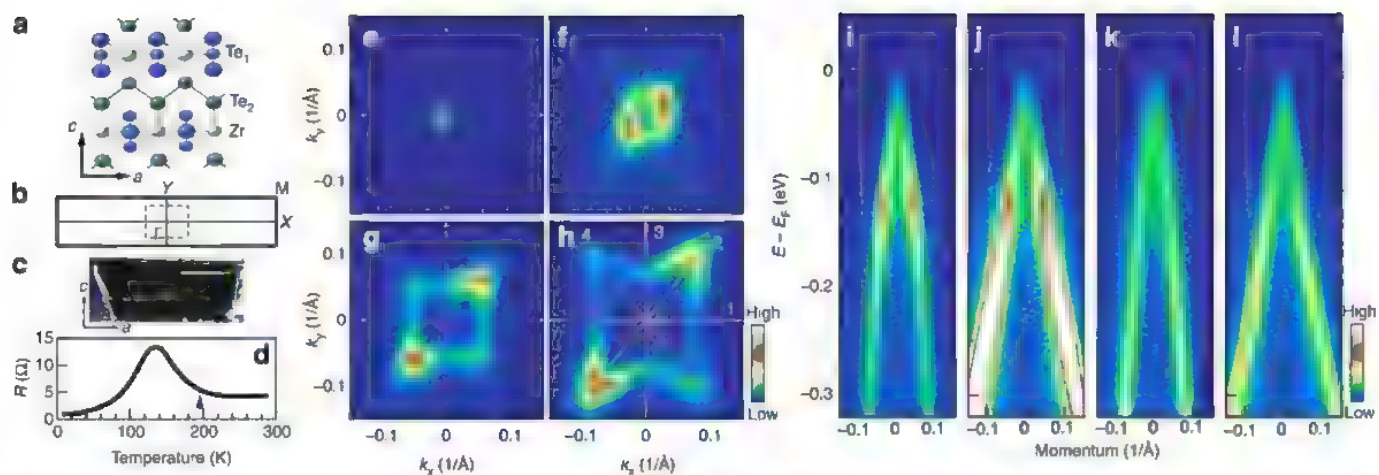




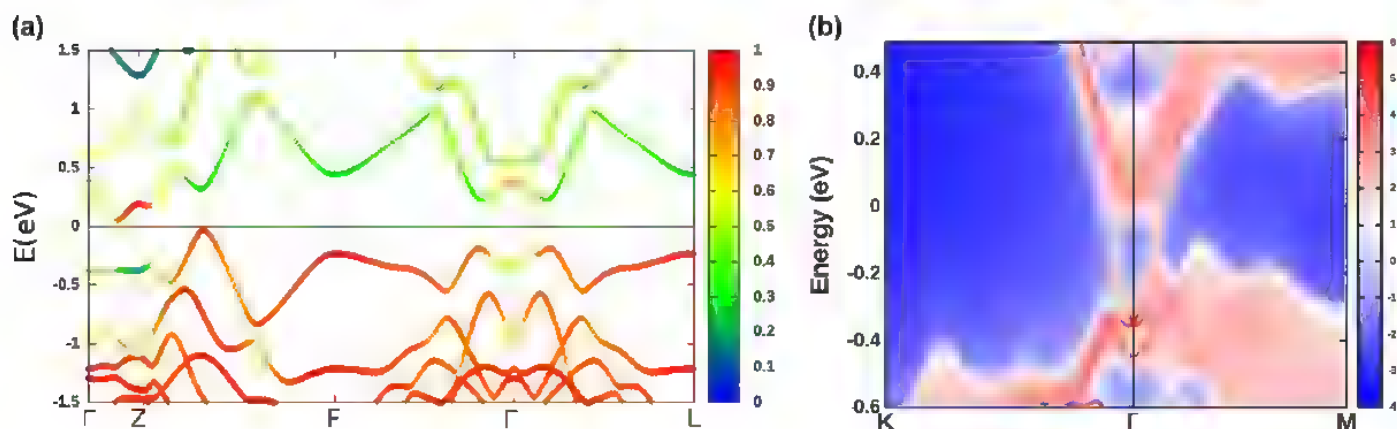
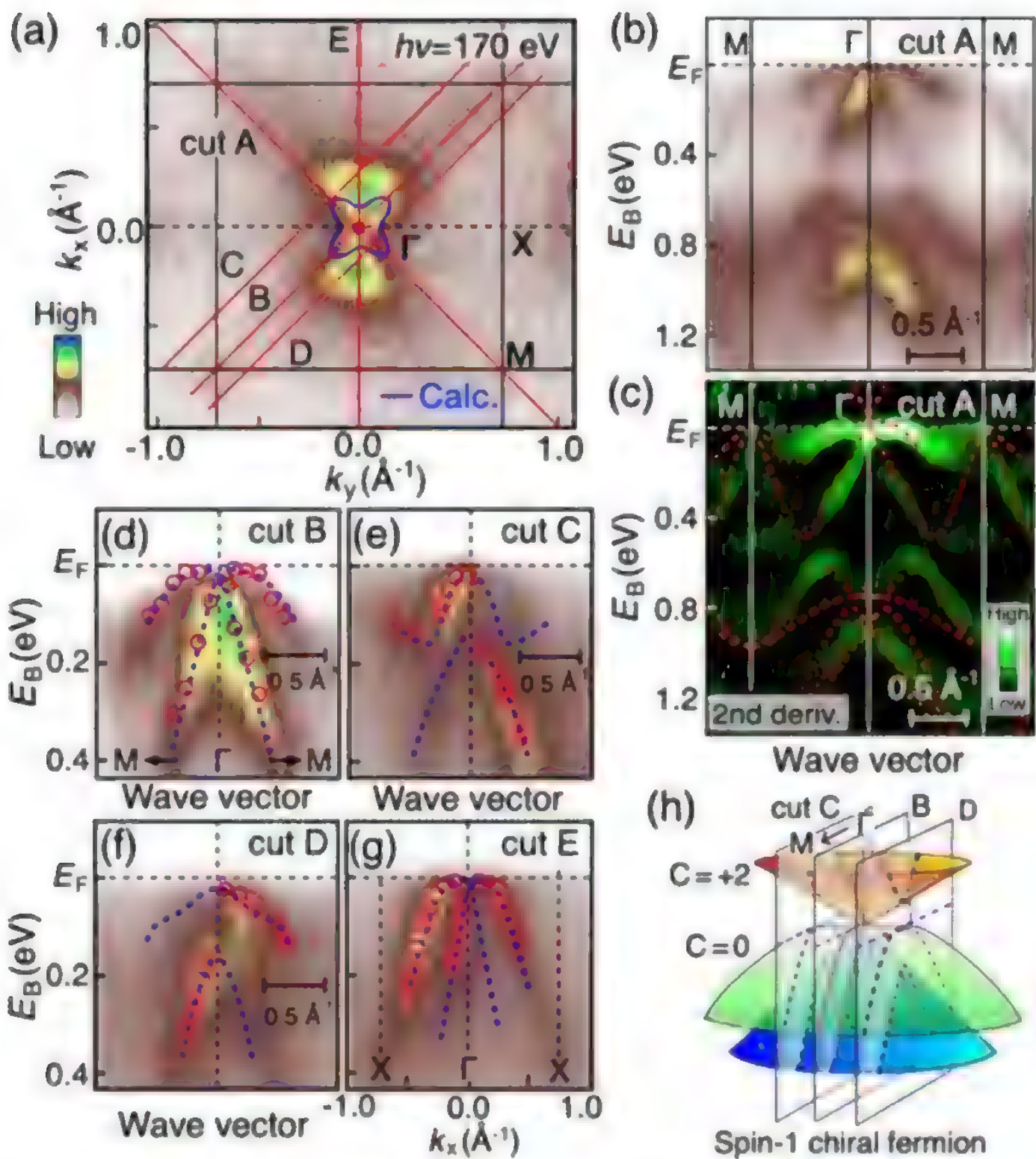




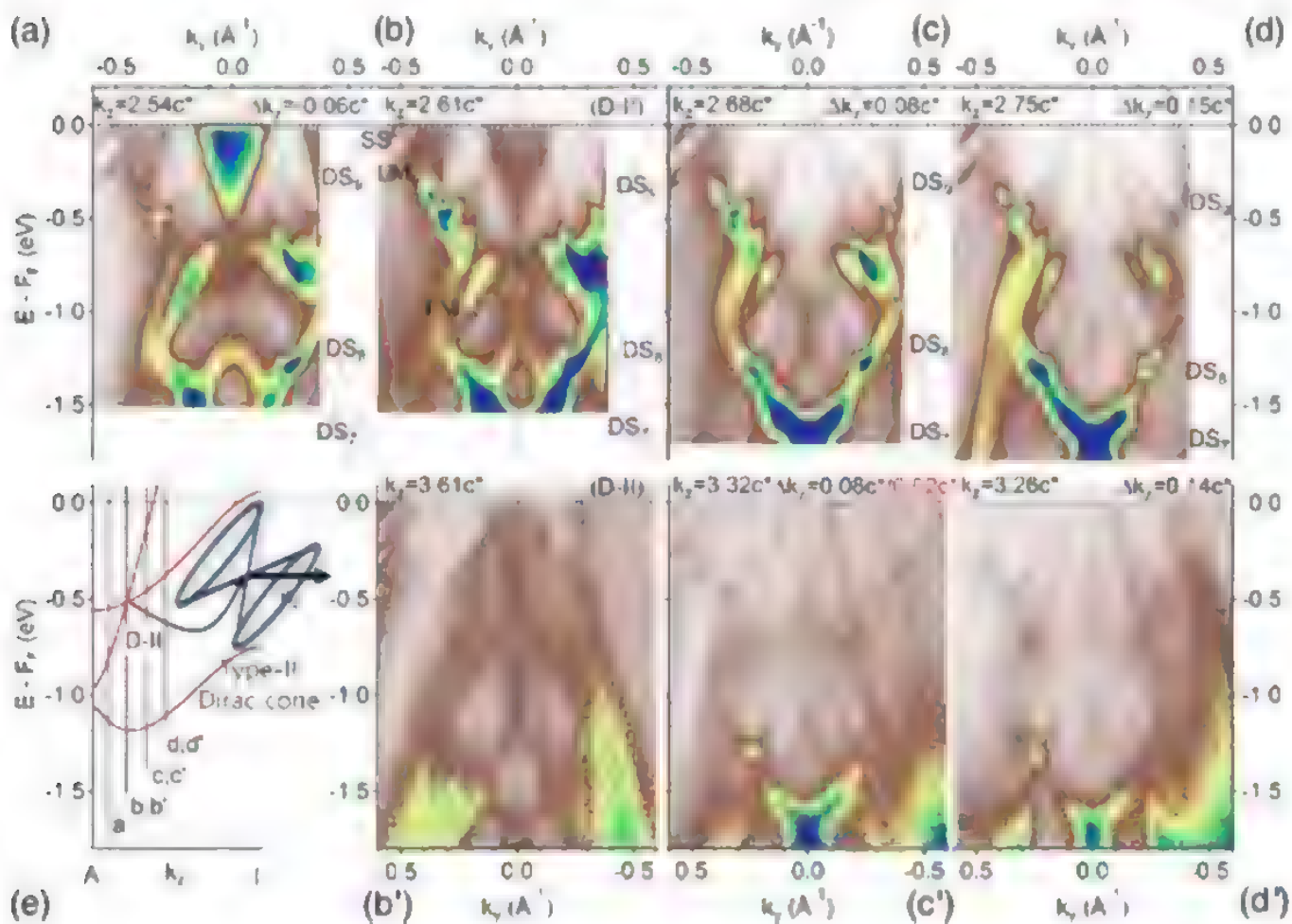
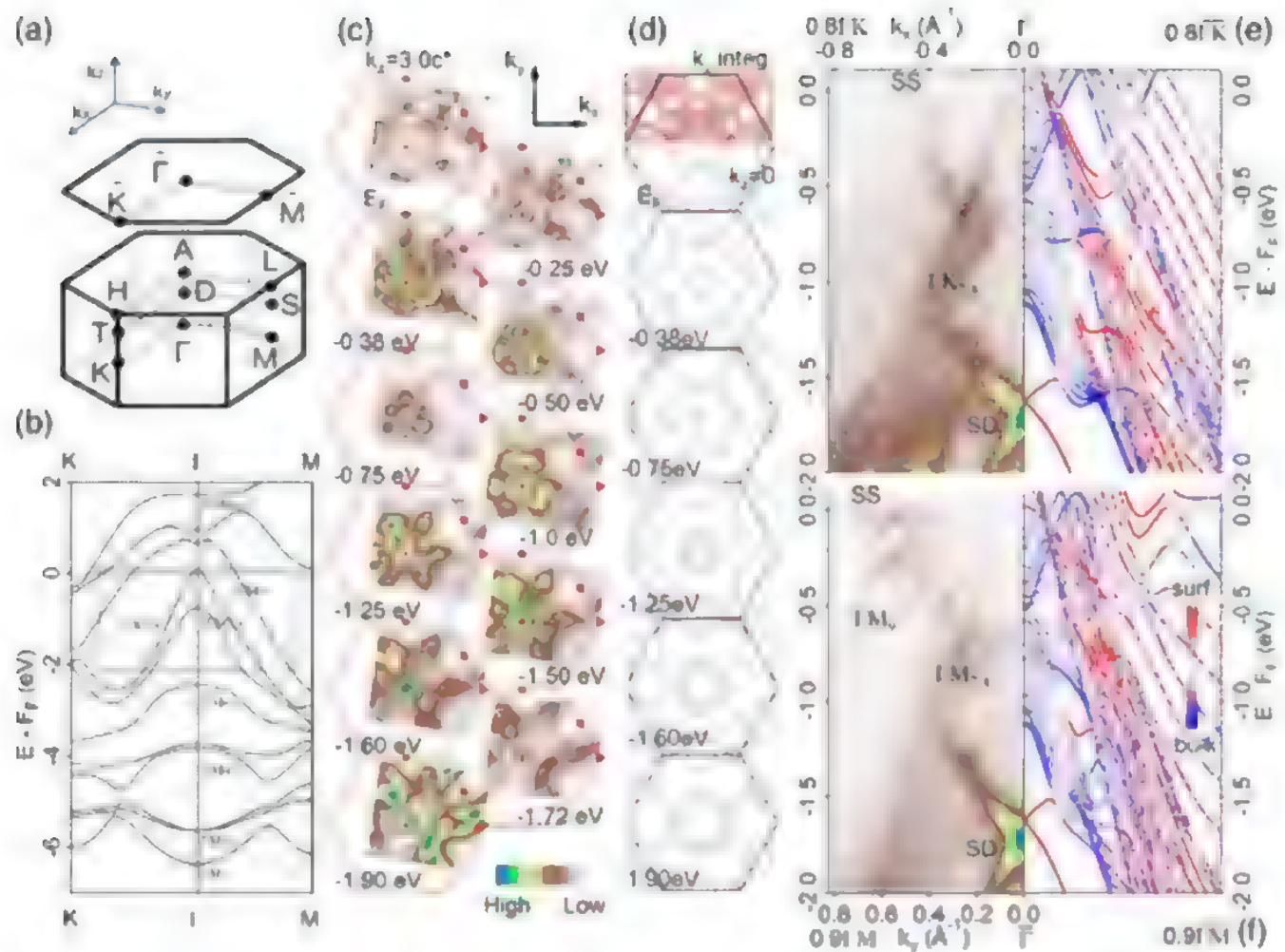


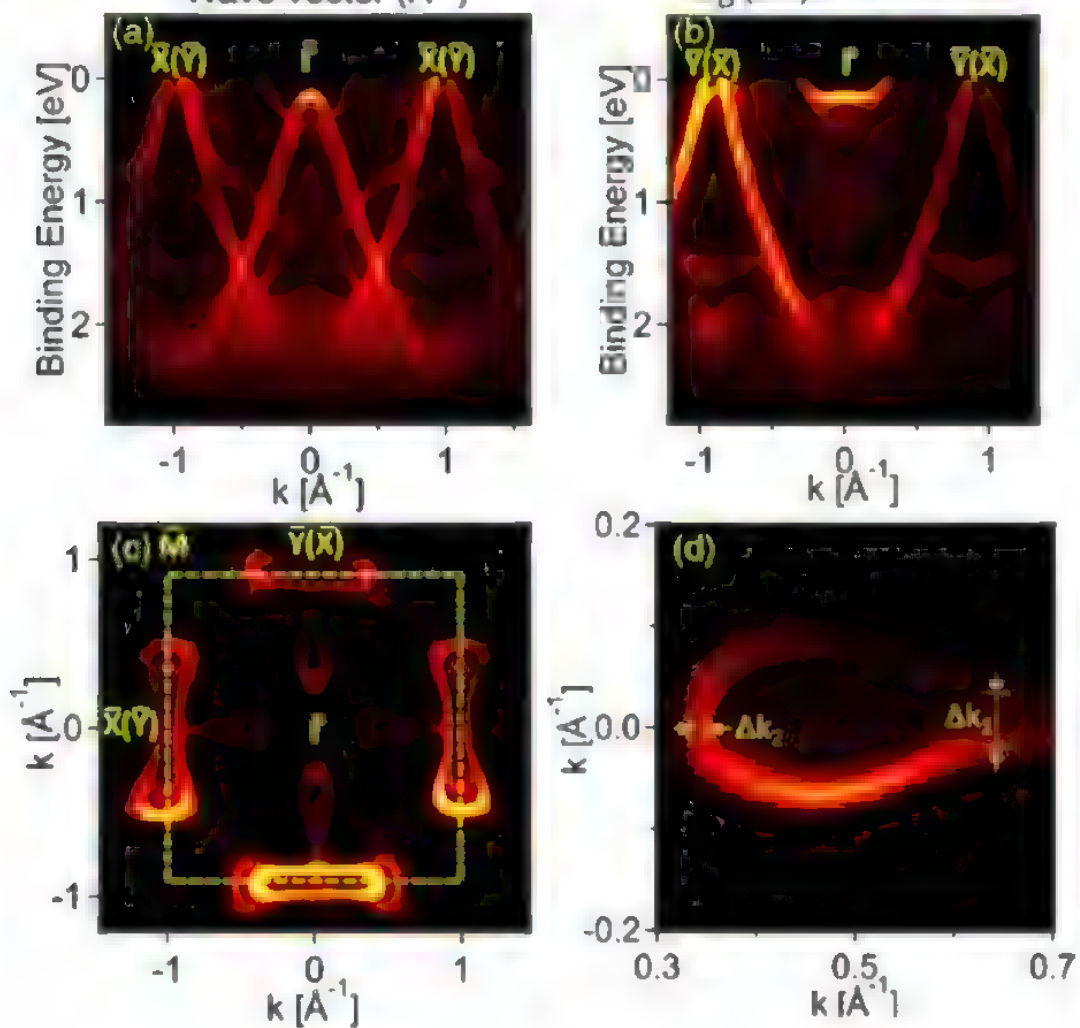
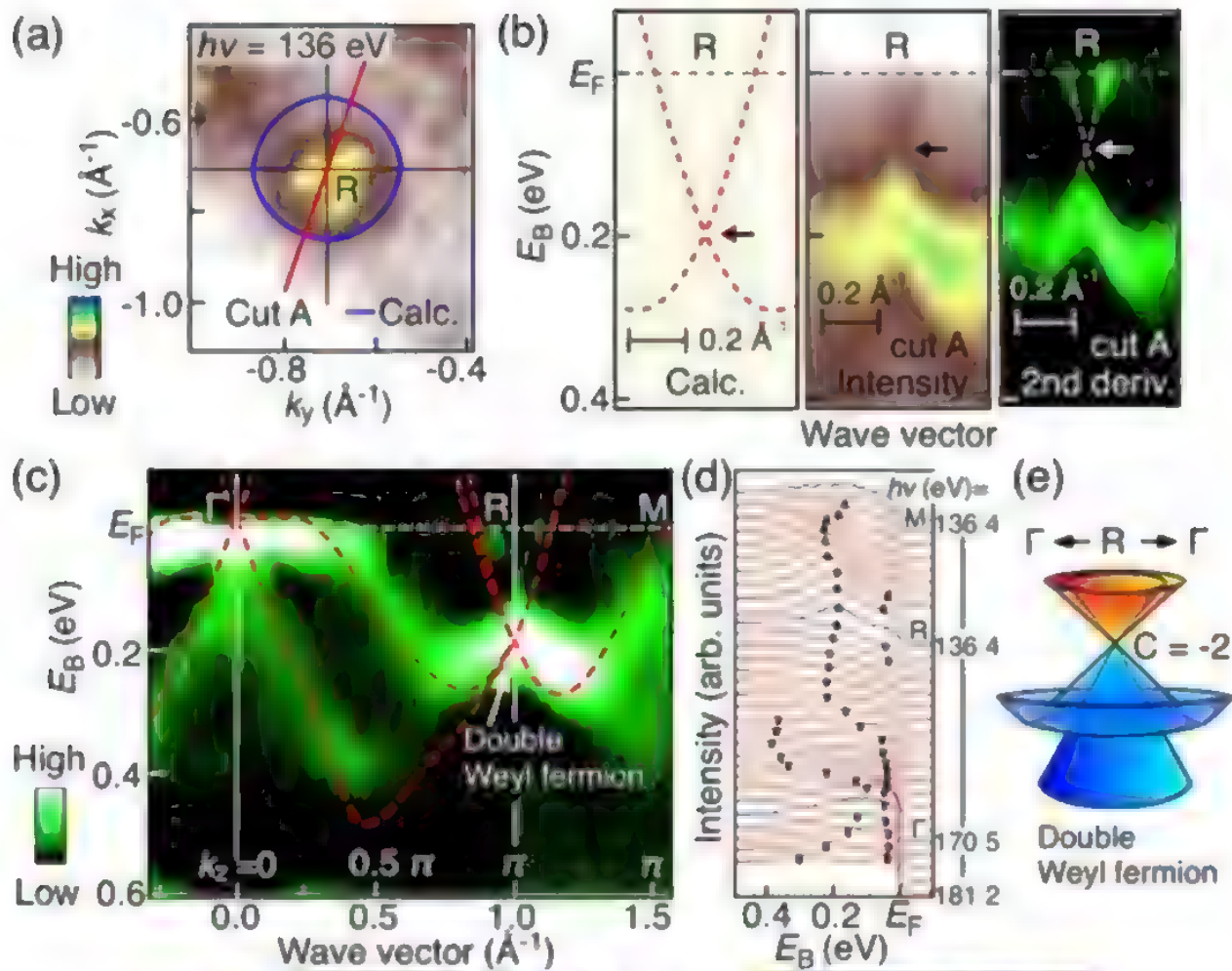


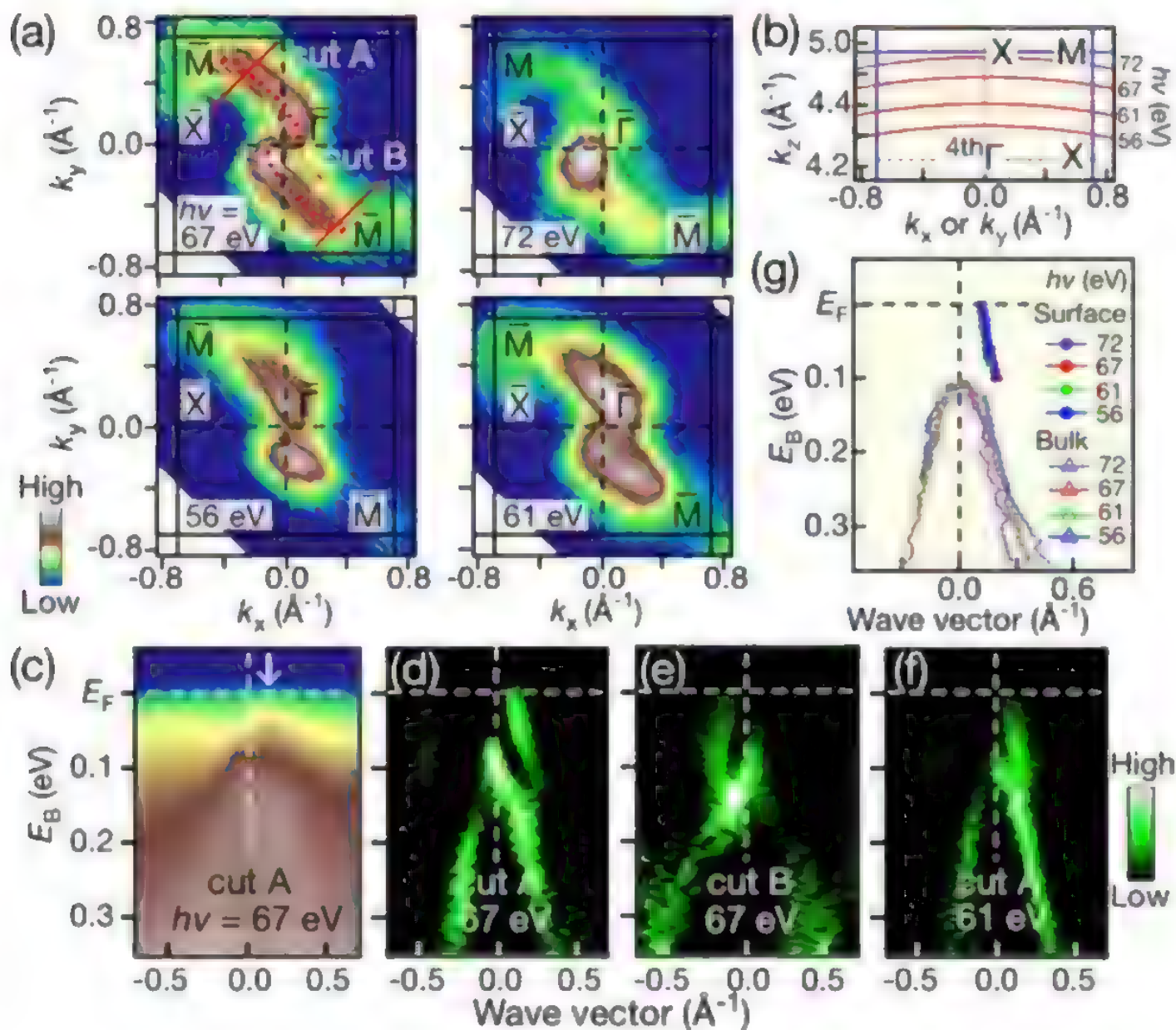
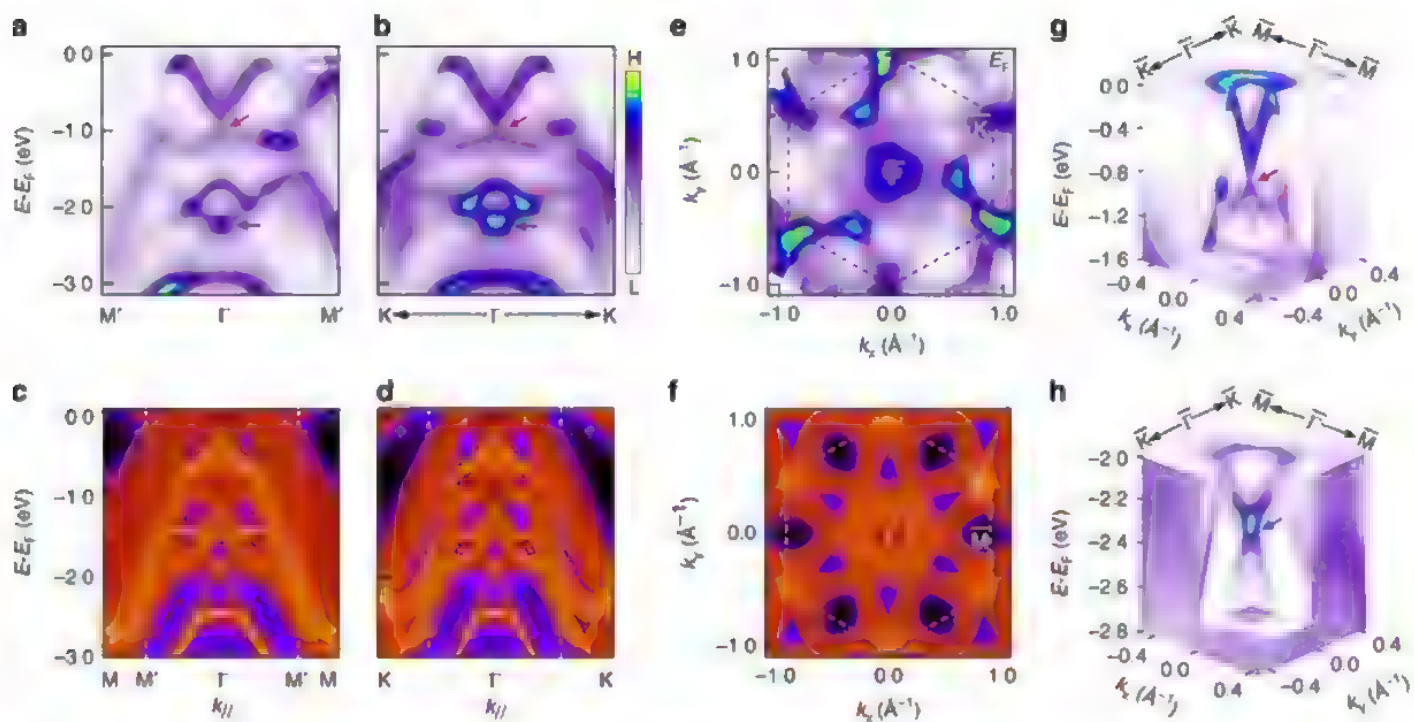




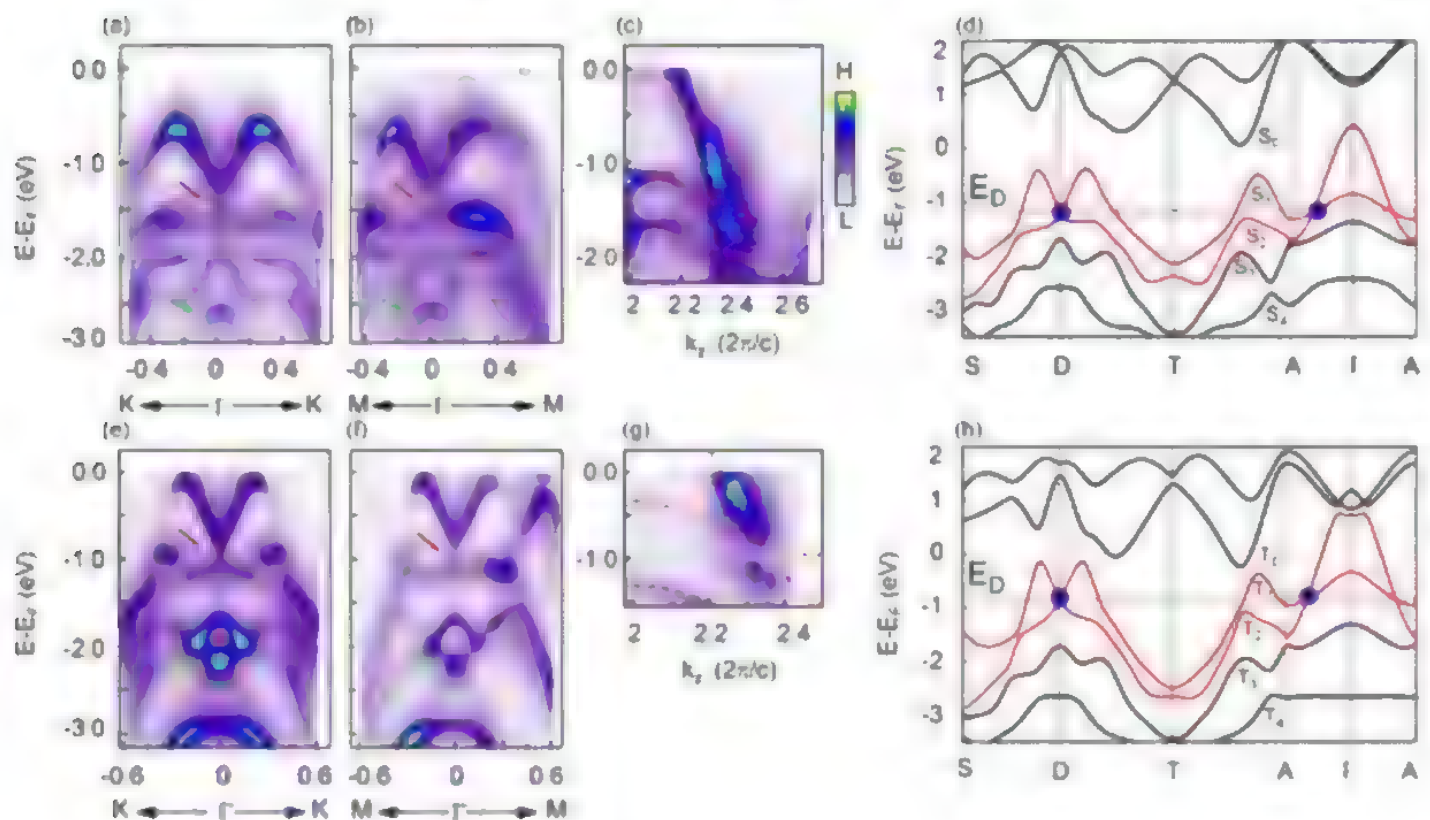
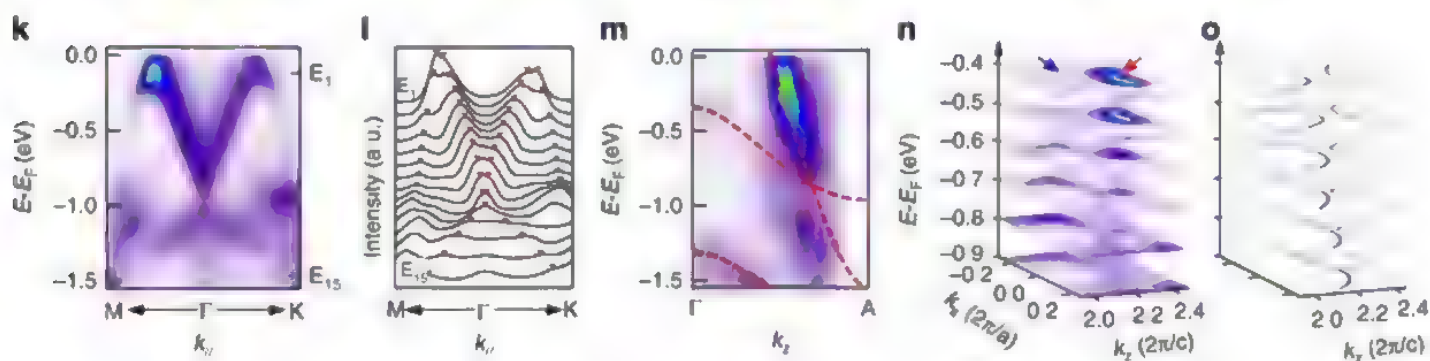
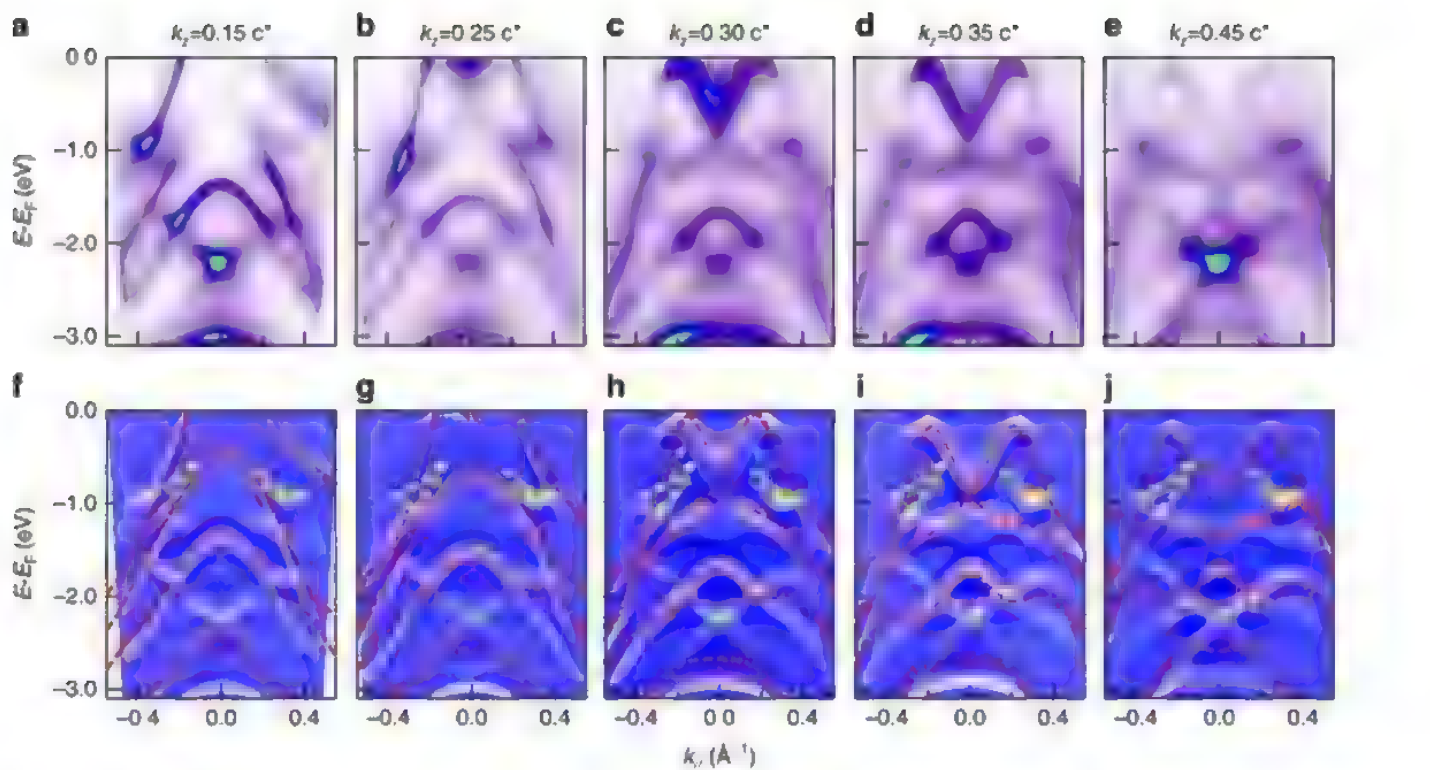




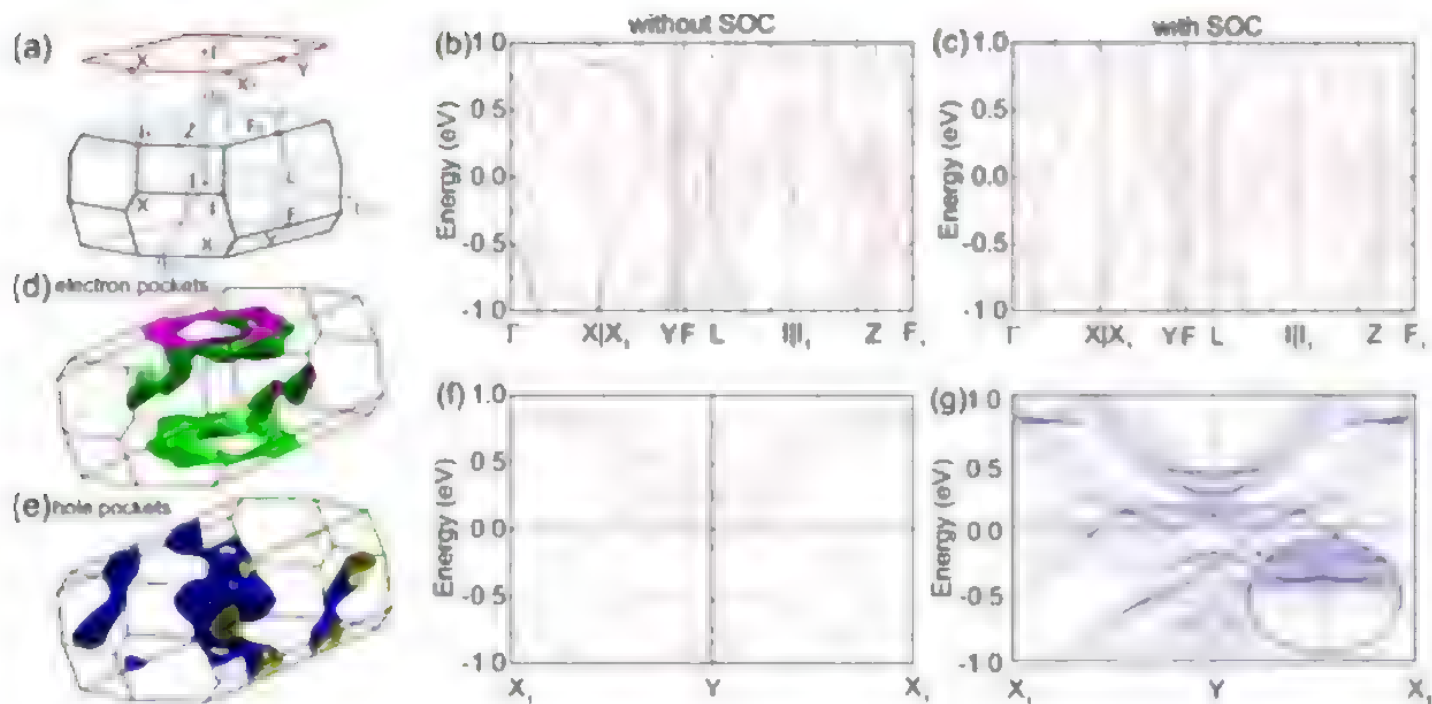
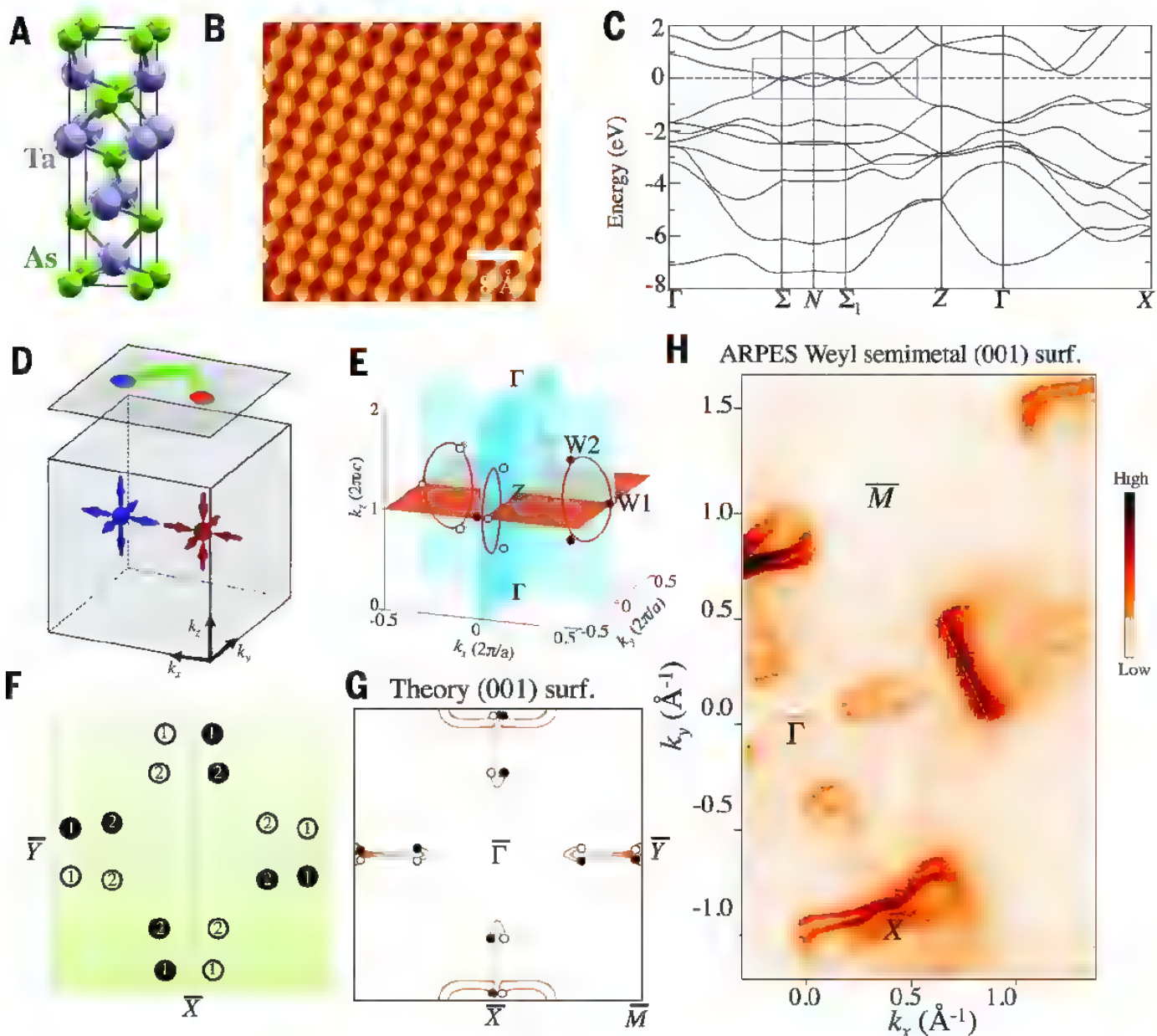


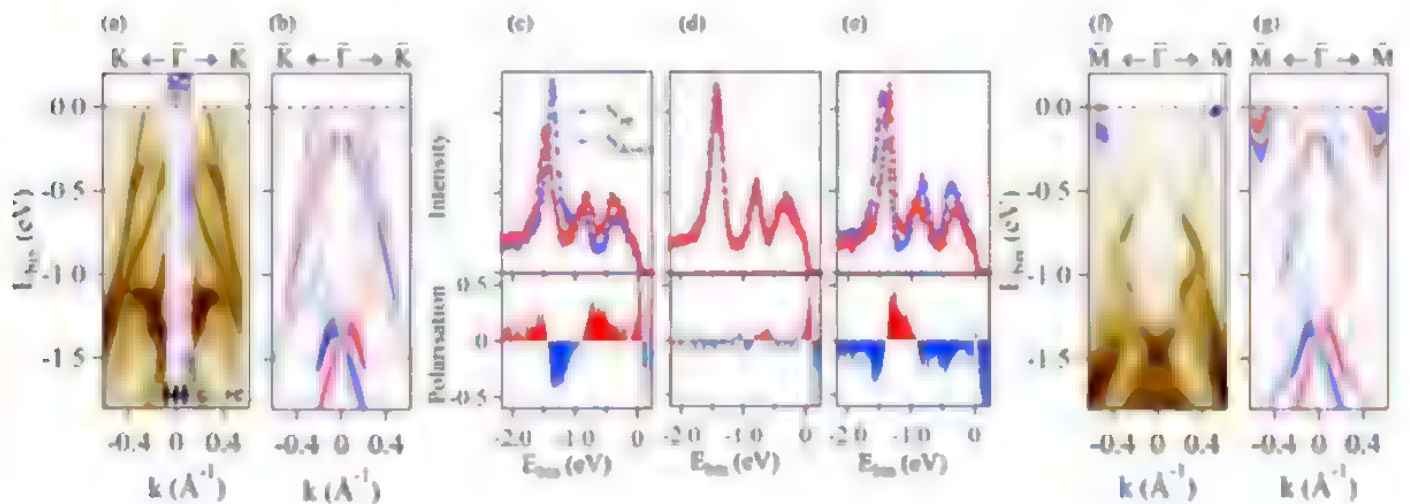
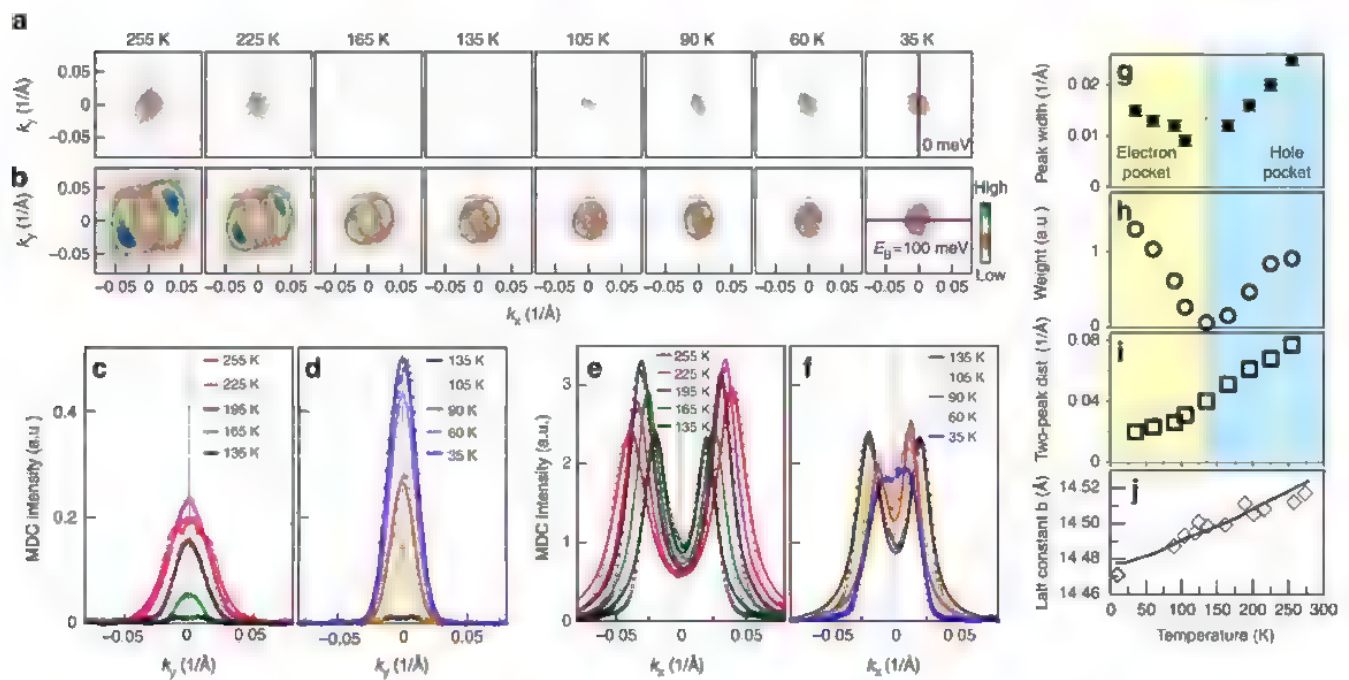
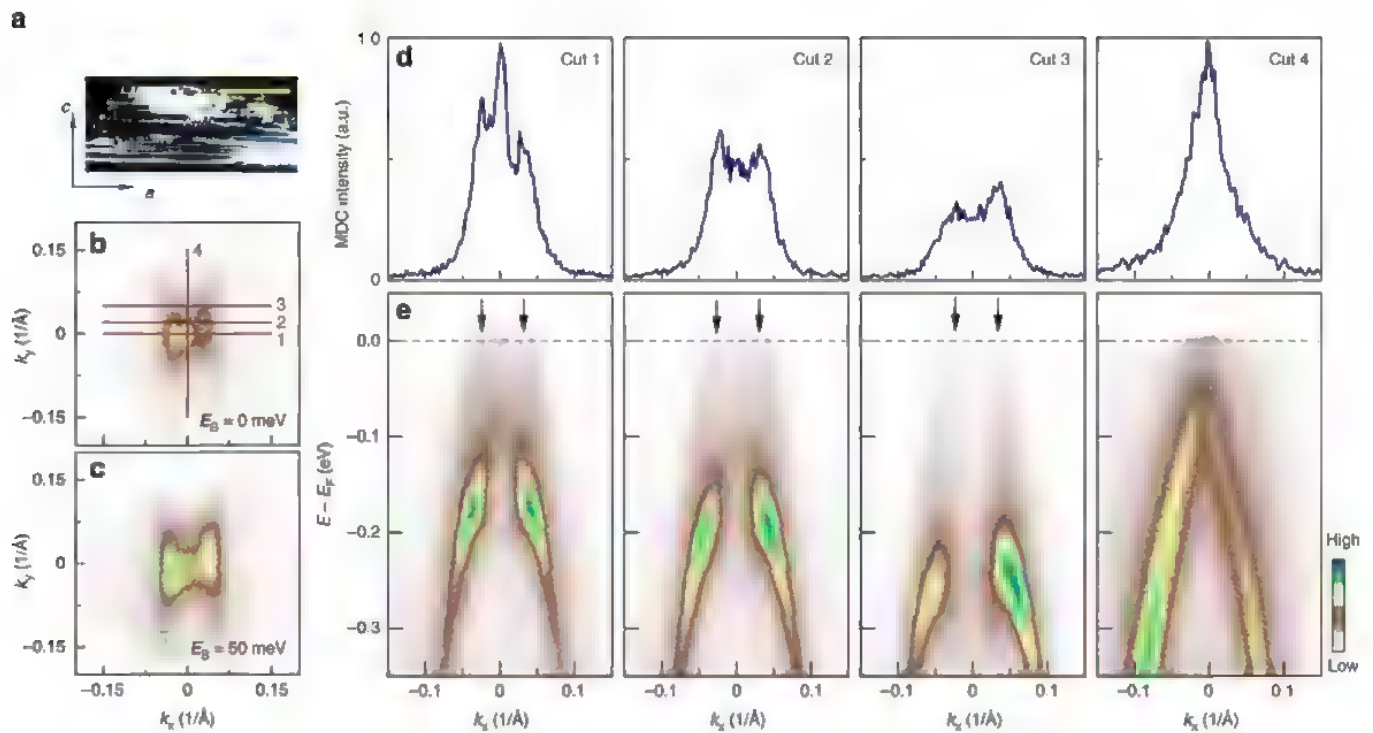


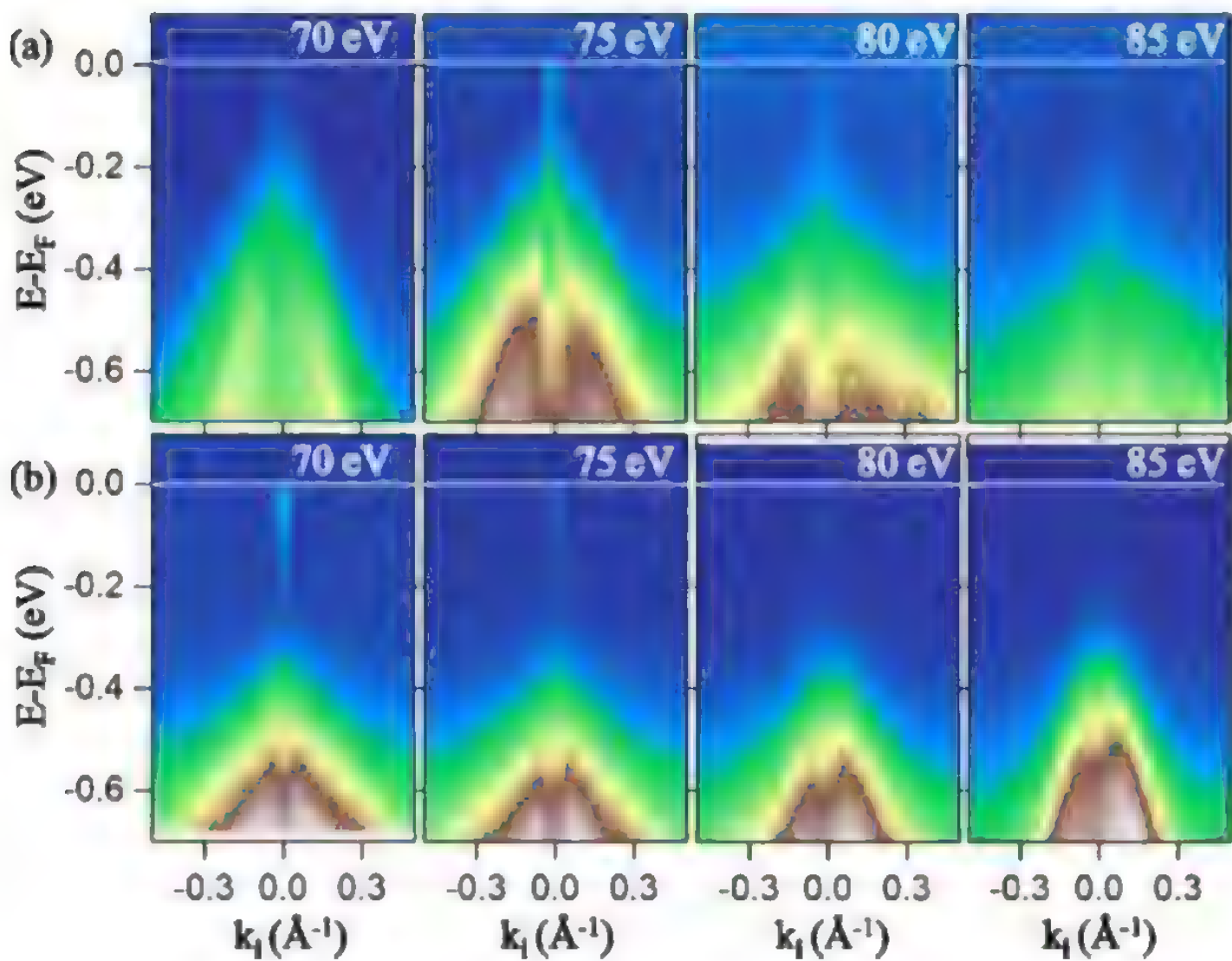
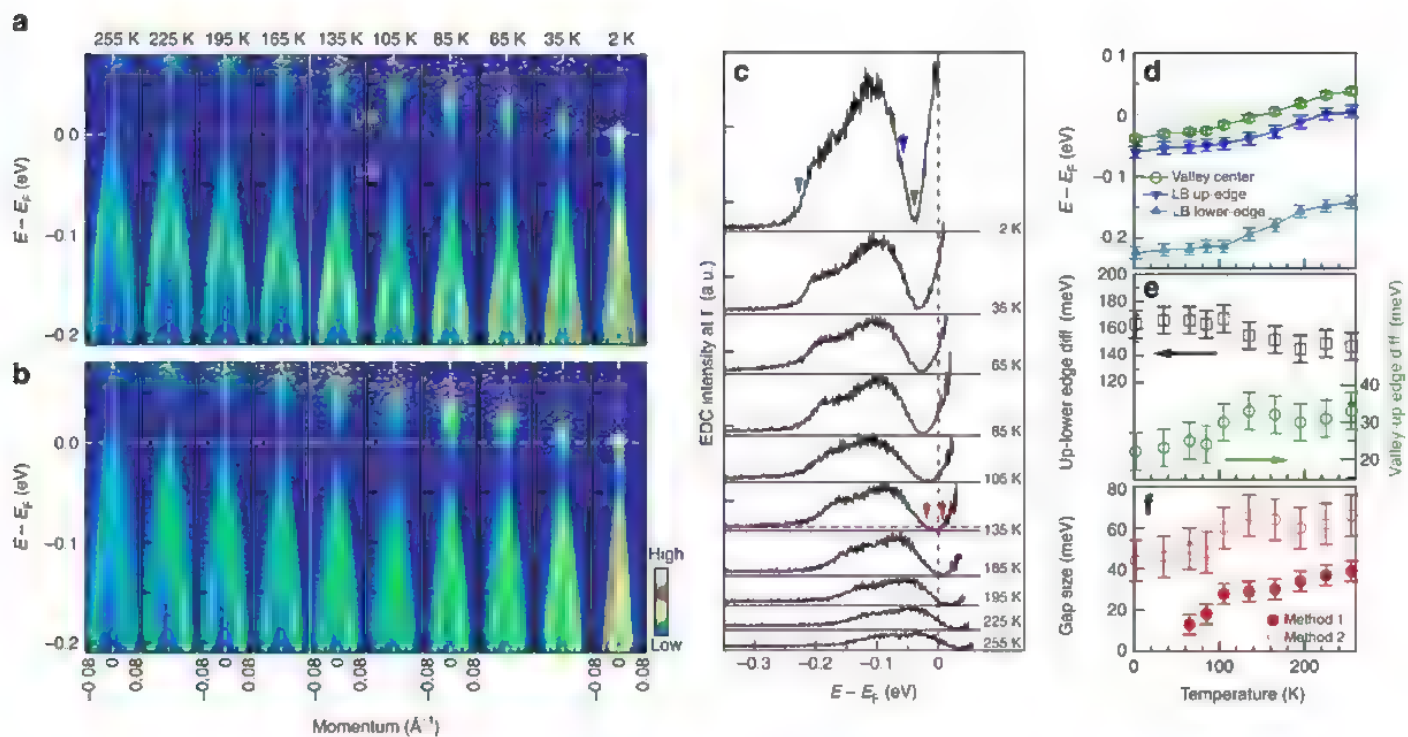


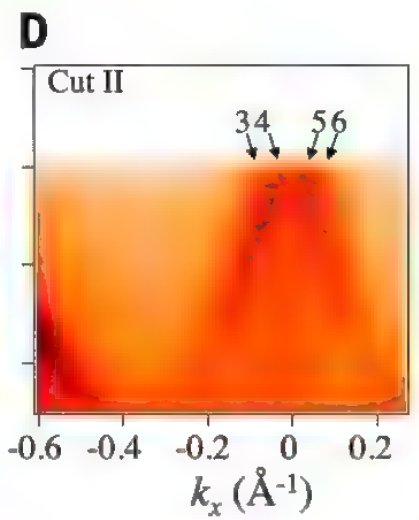
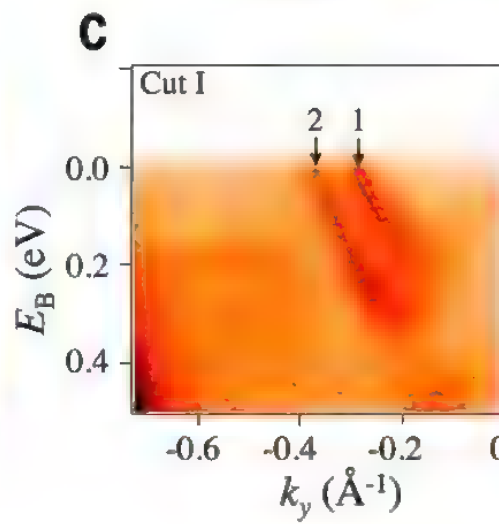
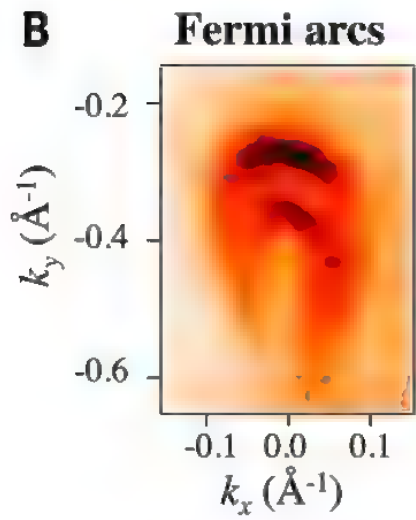
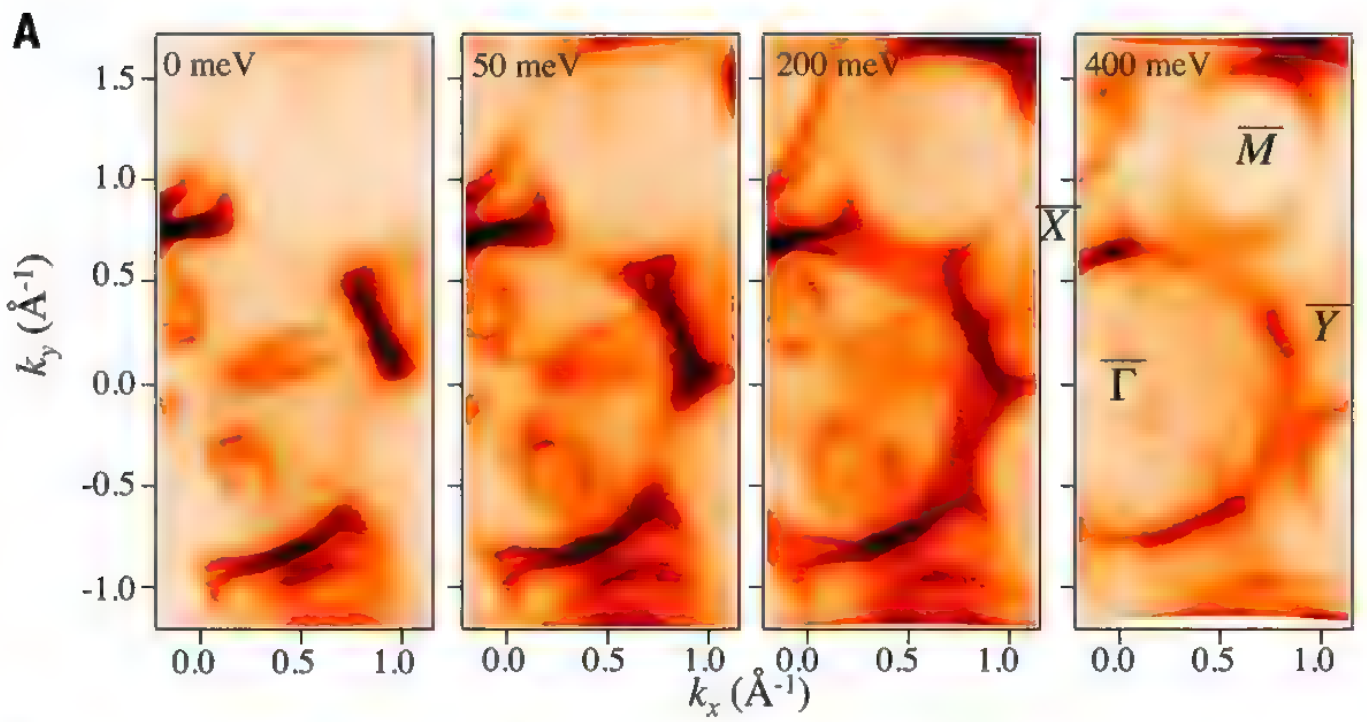




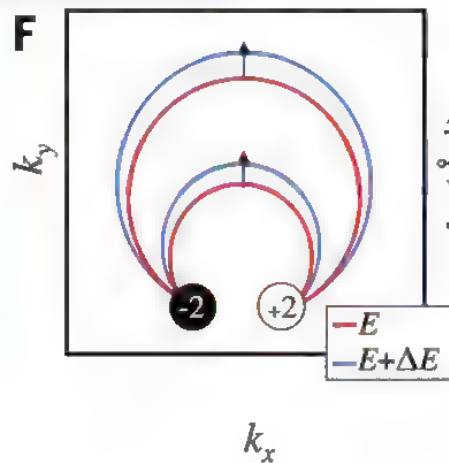
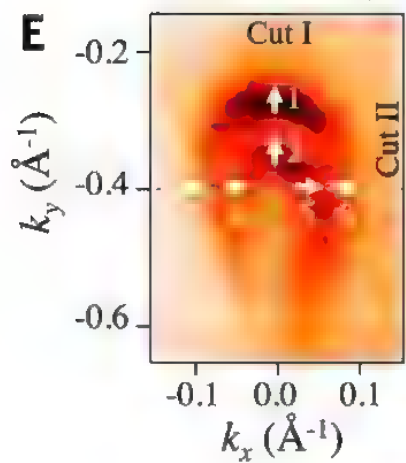




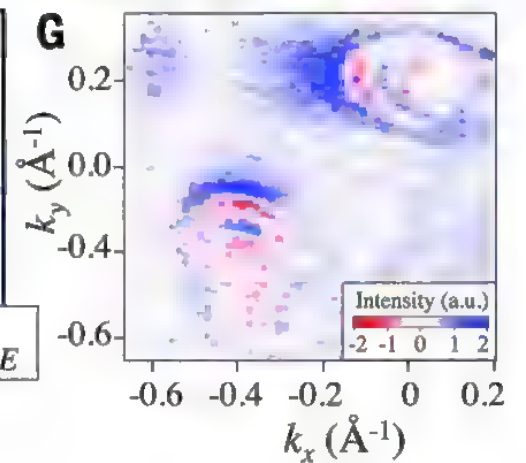




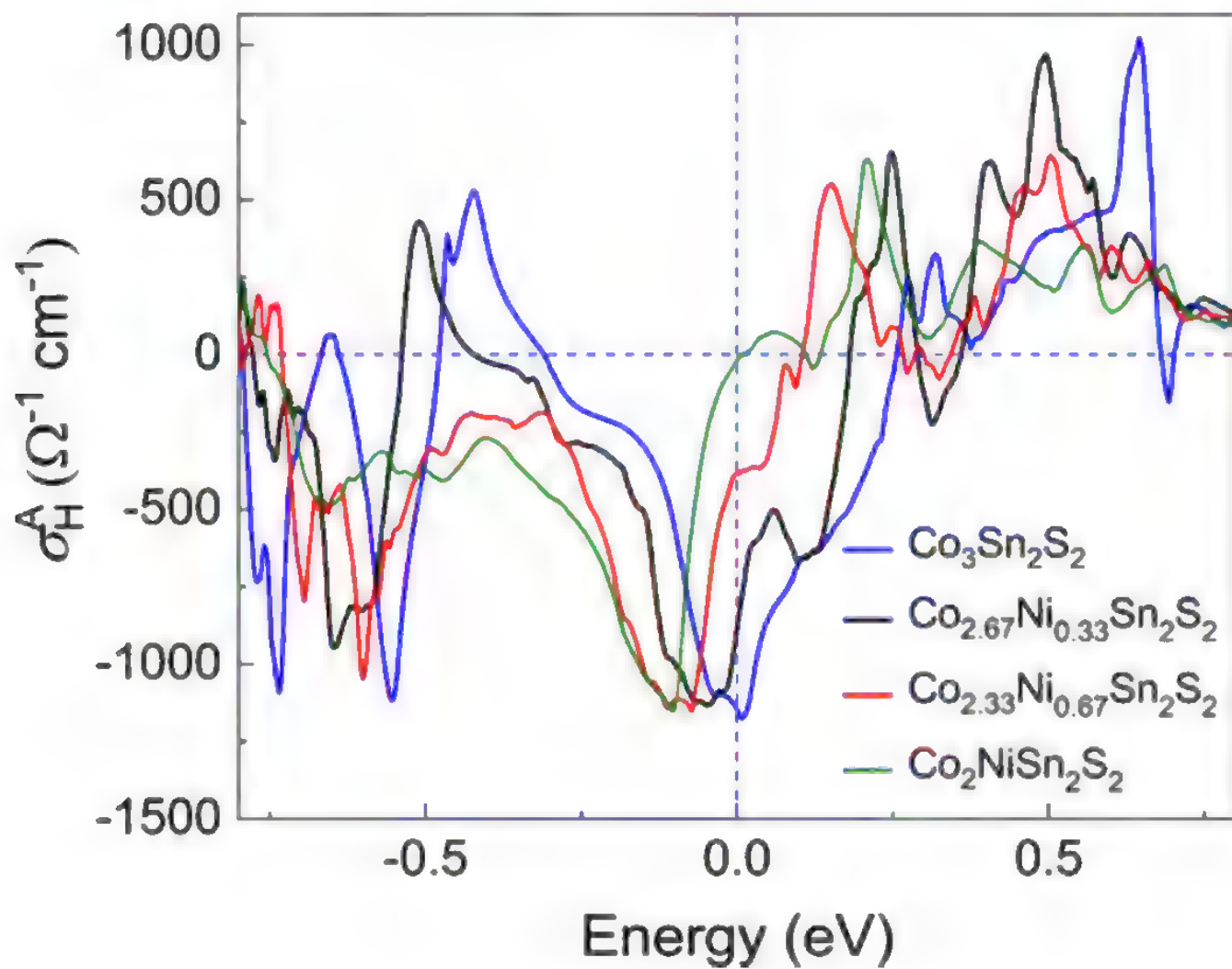
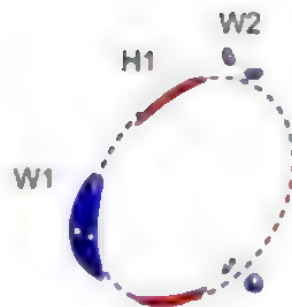
Co-propagating Fermi arcs

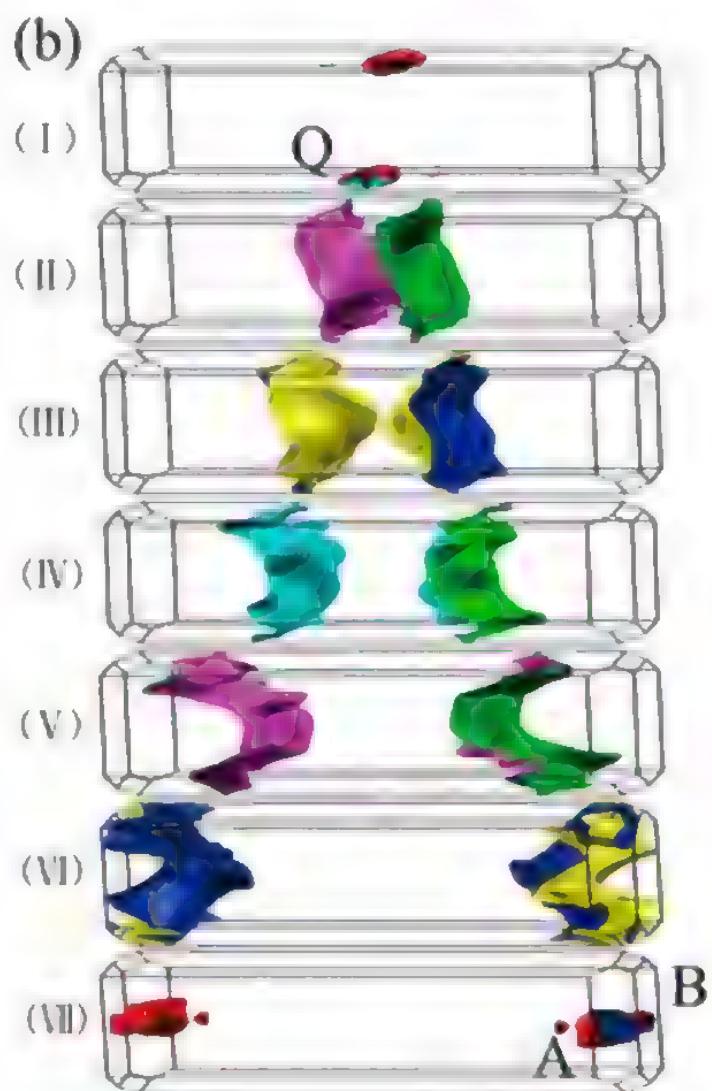
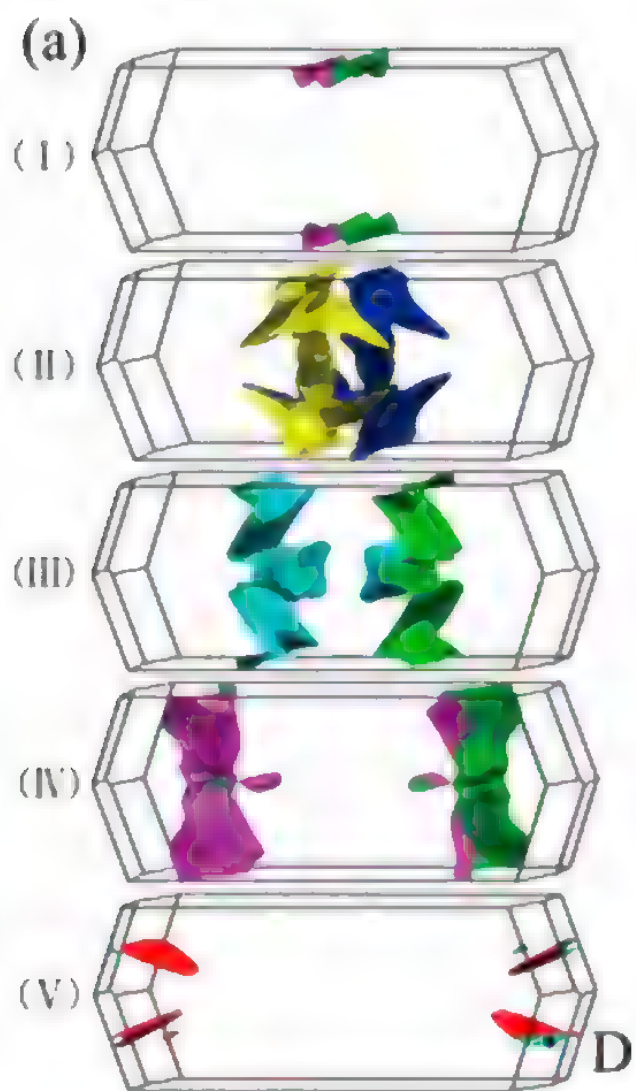
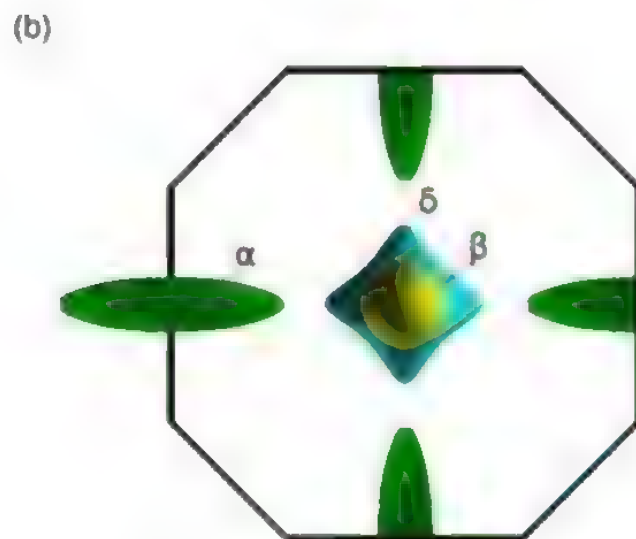
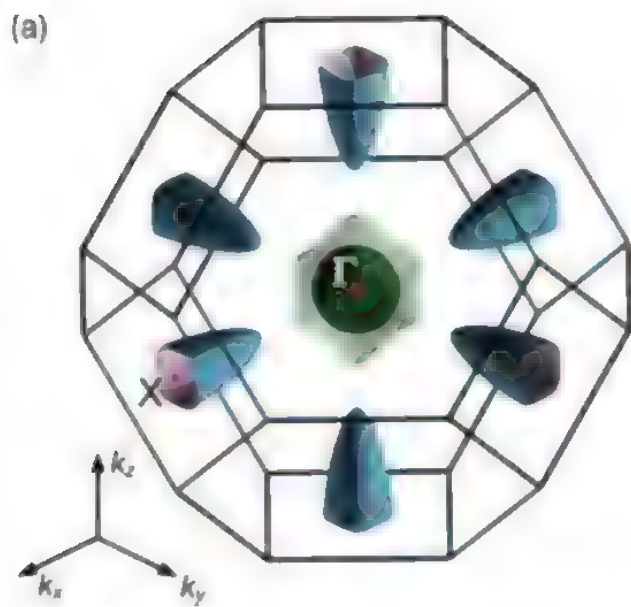


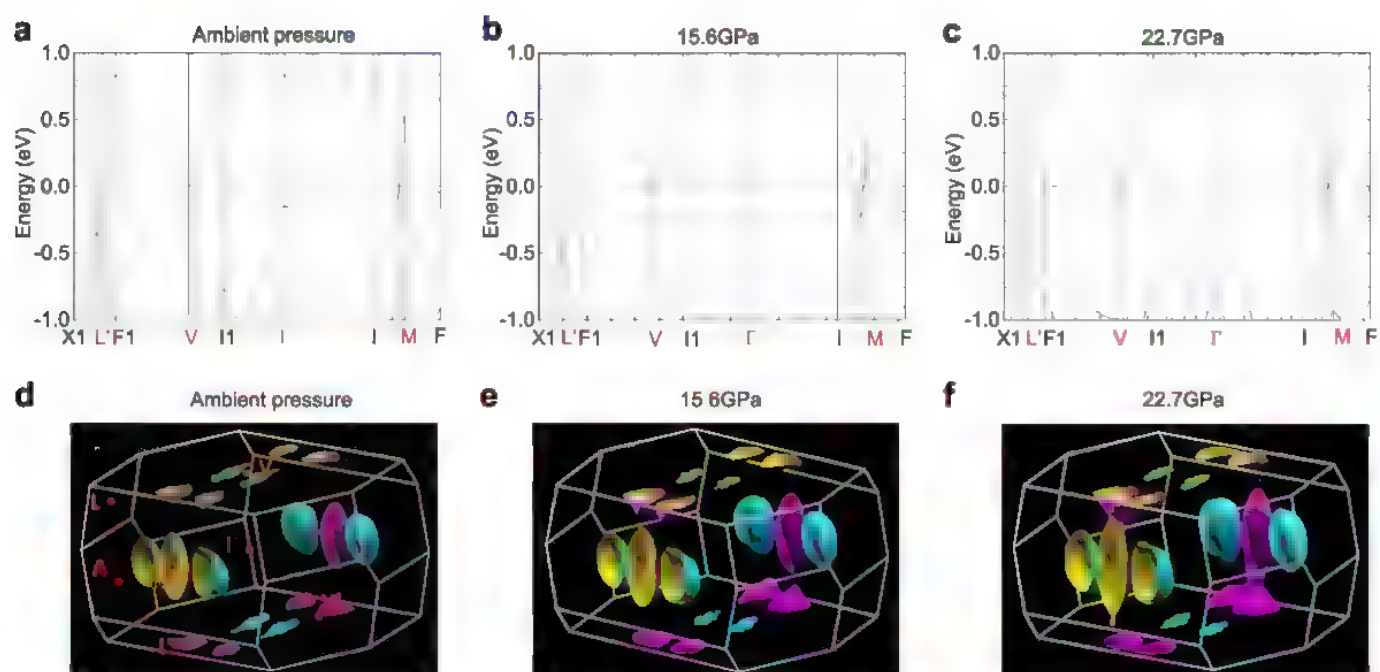
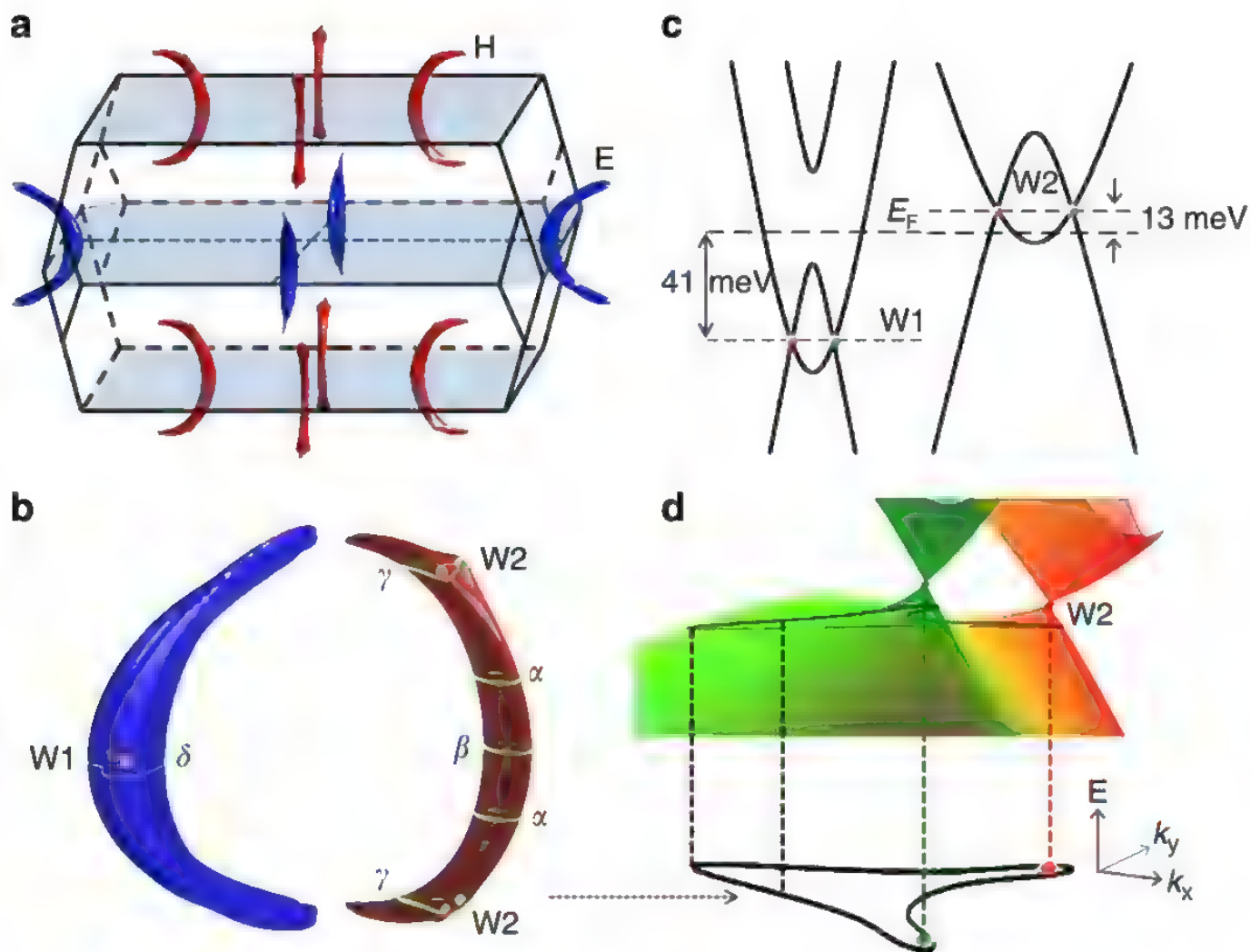
$$\Delta I(k_x, k_y) = I(E_B=20\text{meV}) - I(E_B=0\text{meV})$$

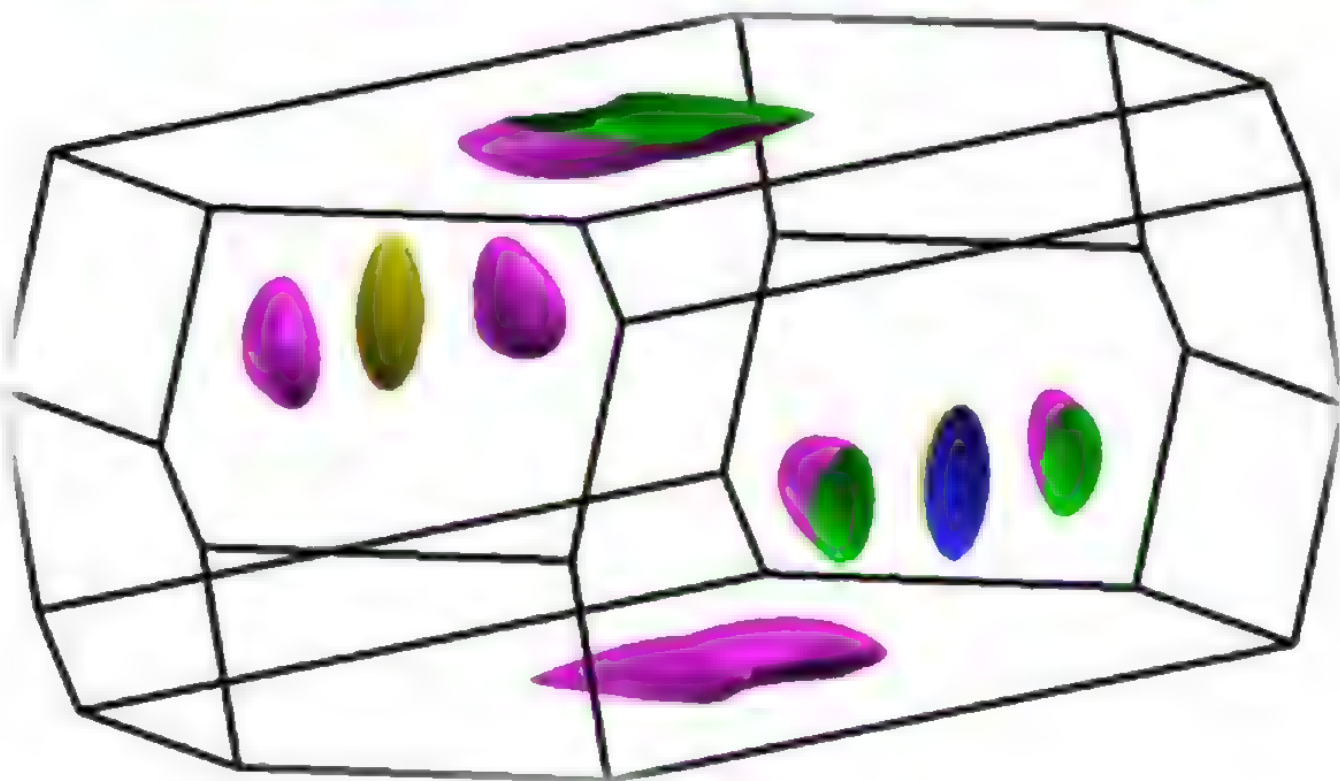
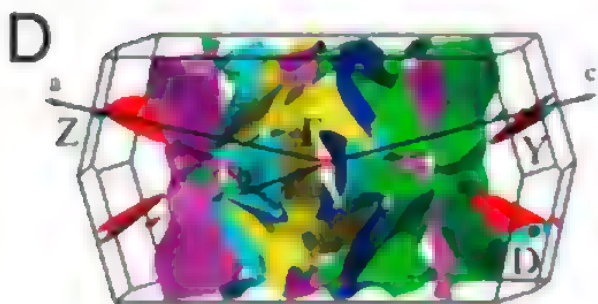
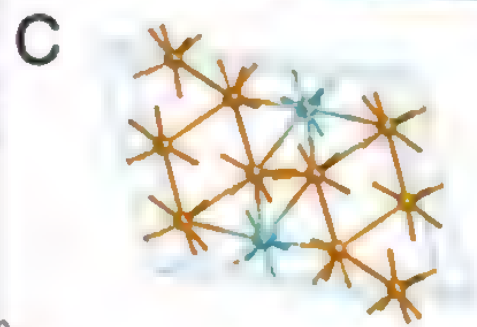
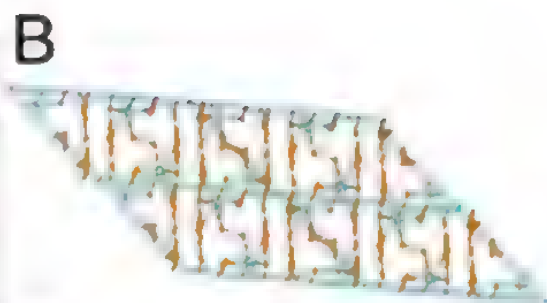
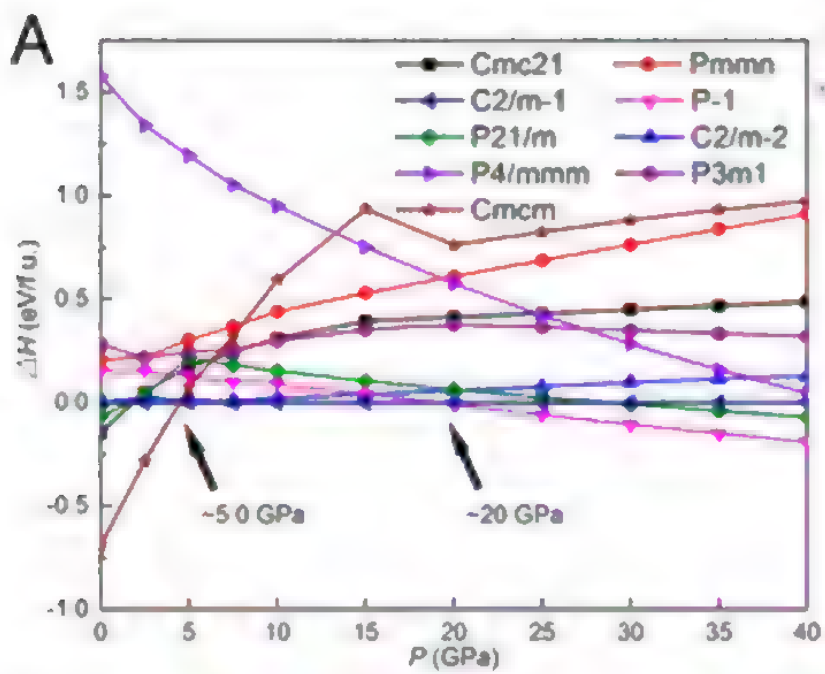




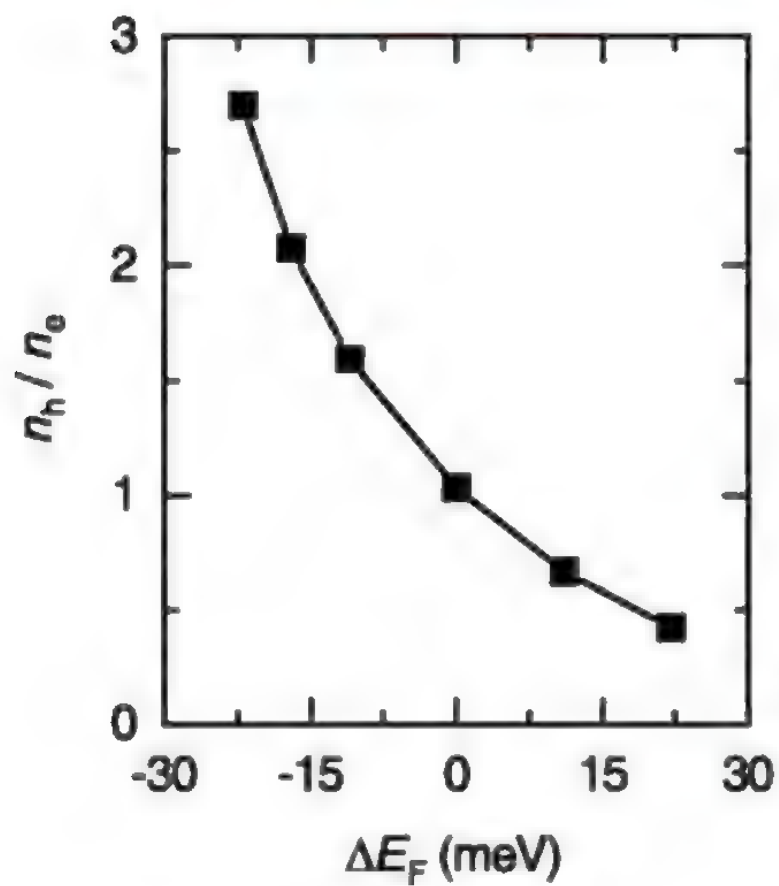
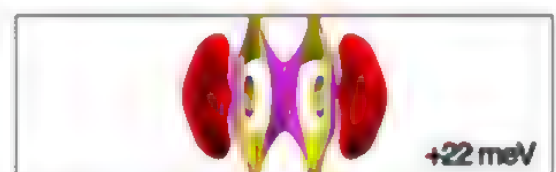
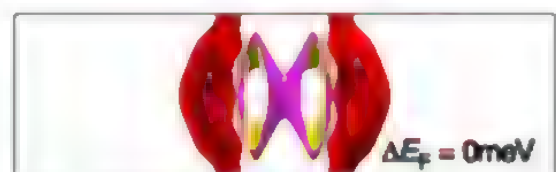
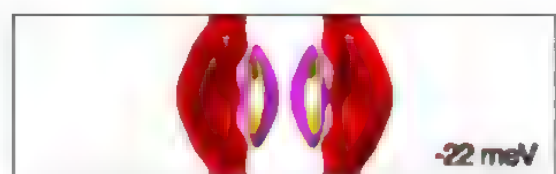
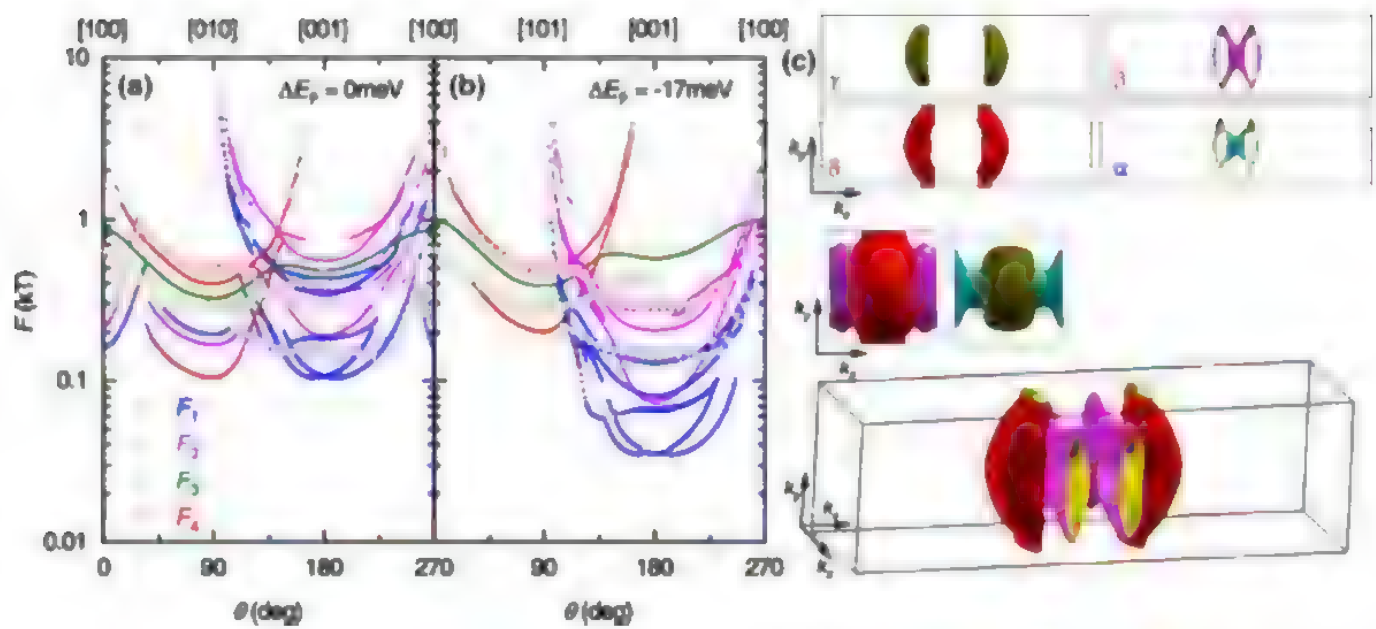


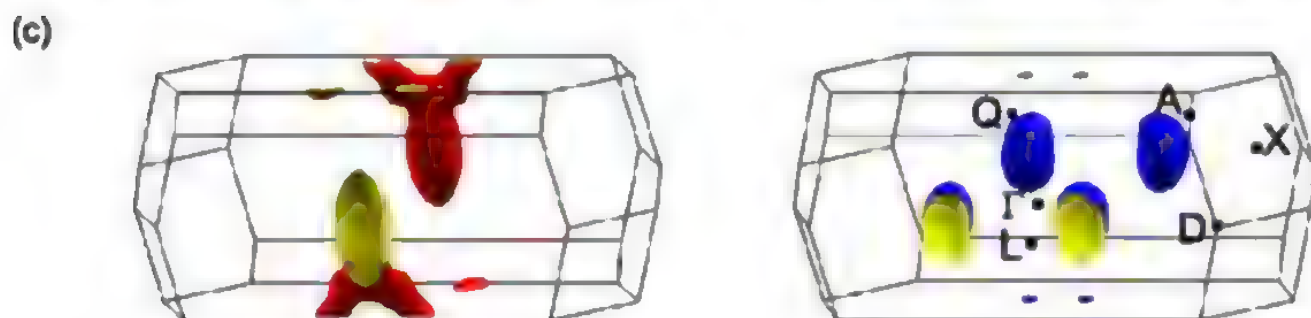
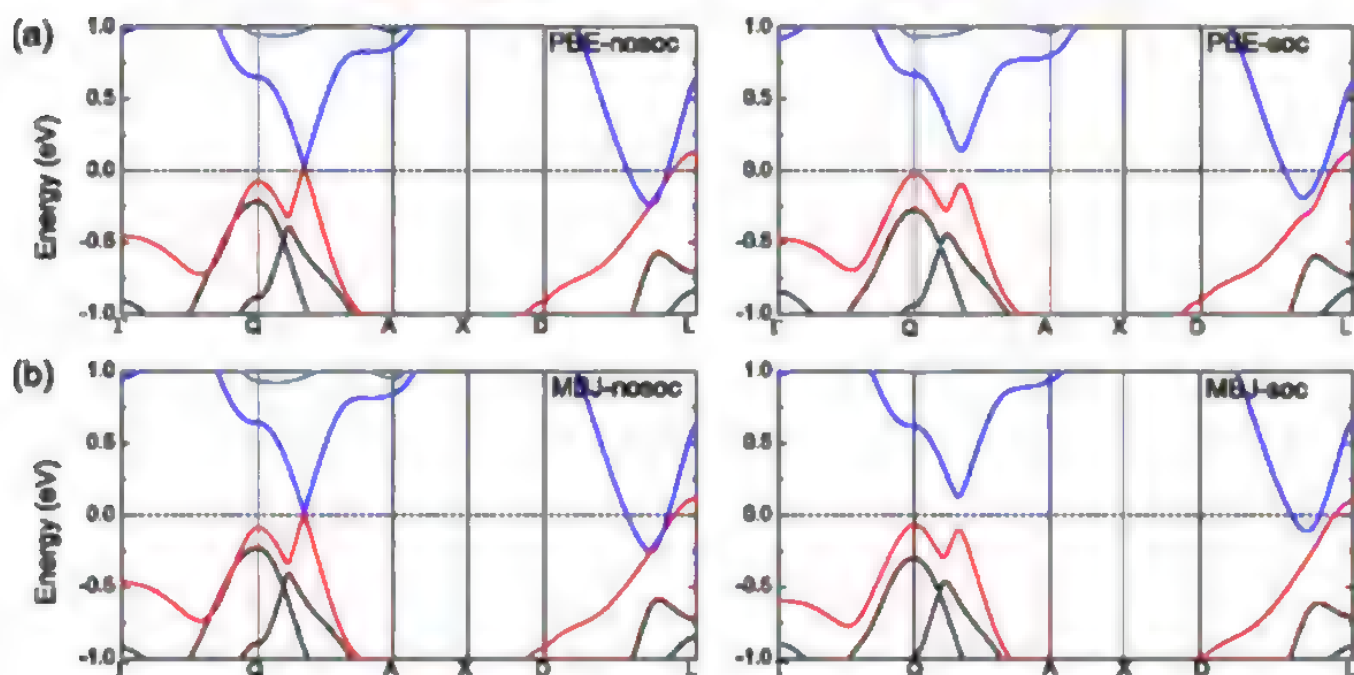
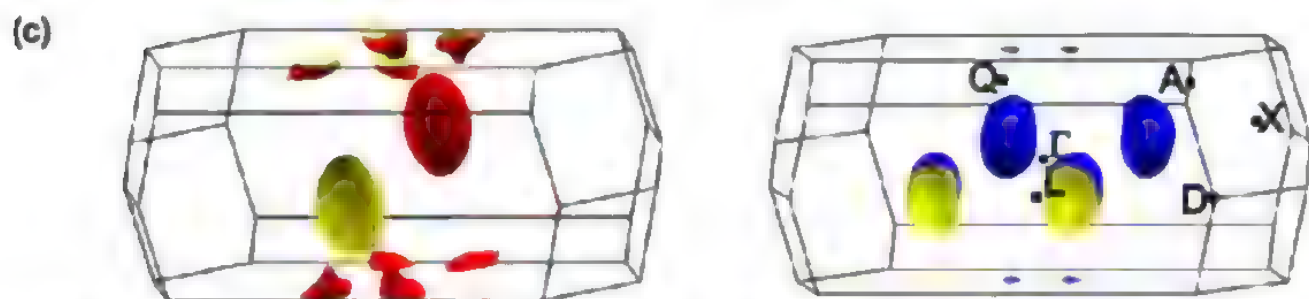
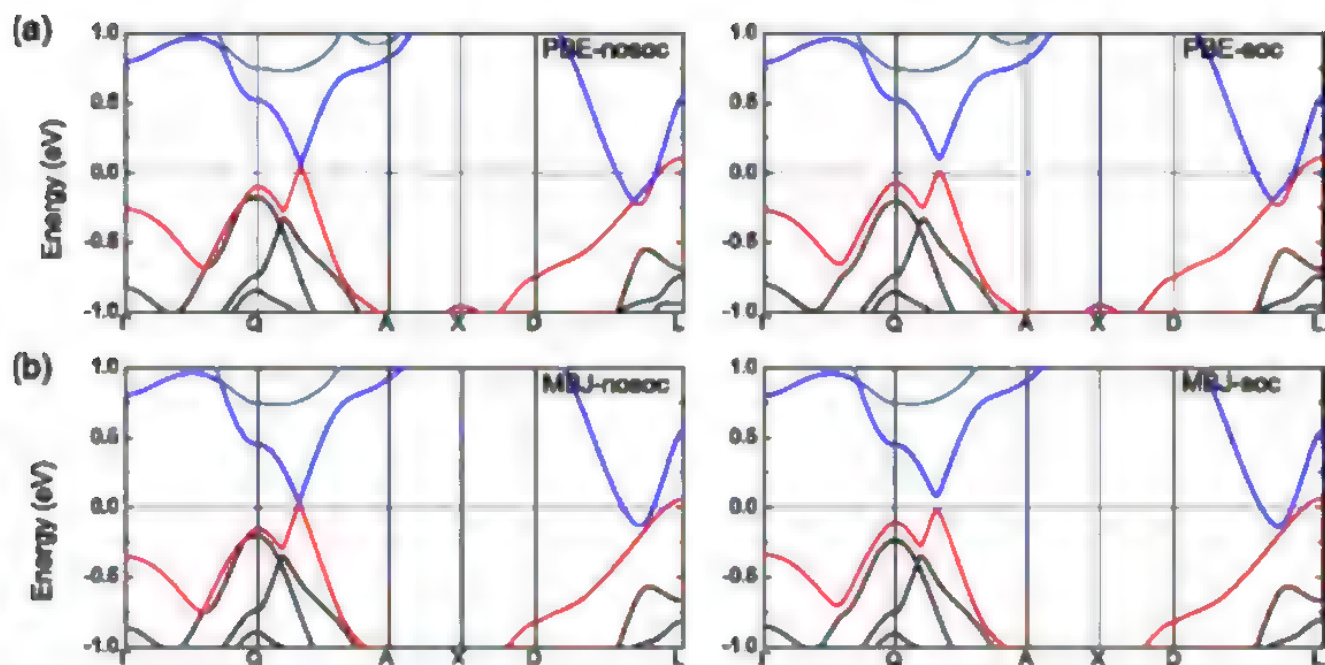


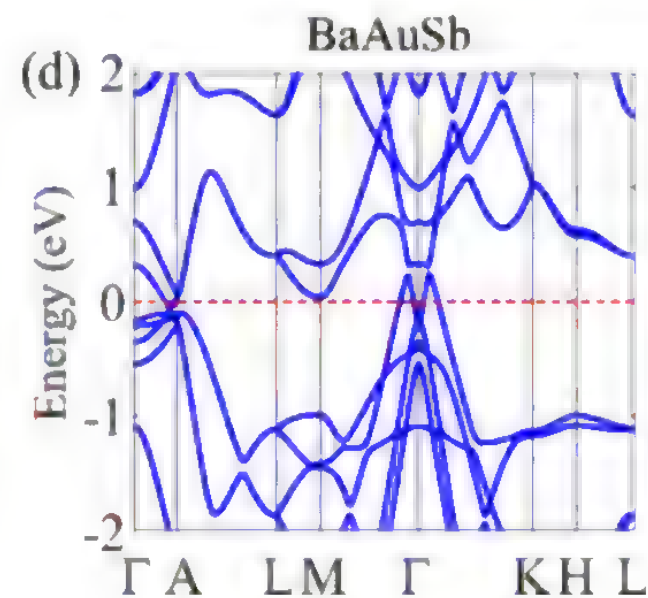
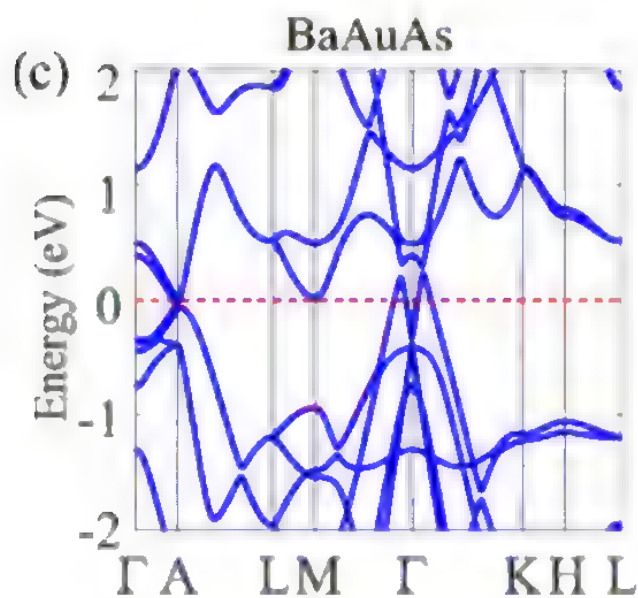
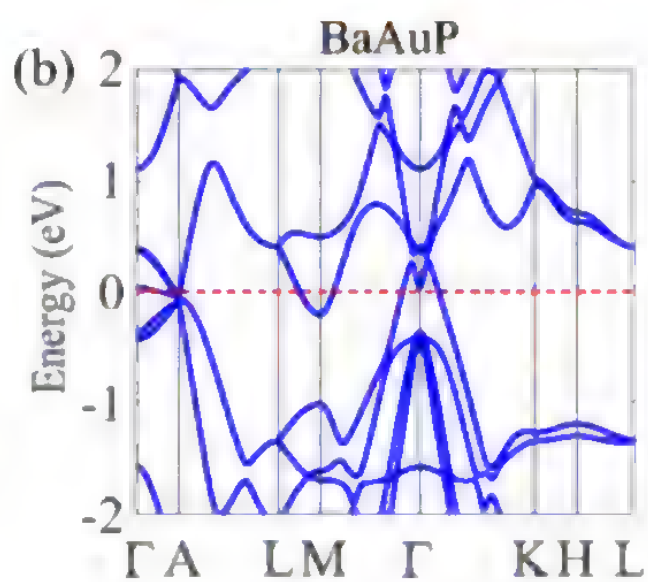
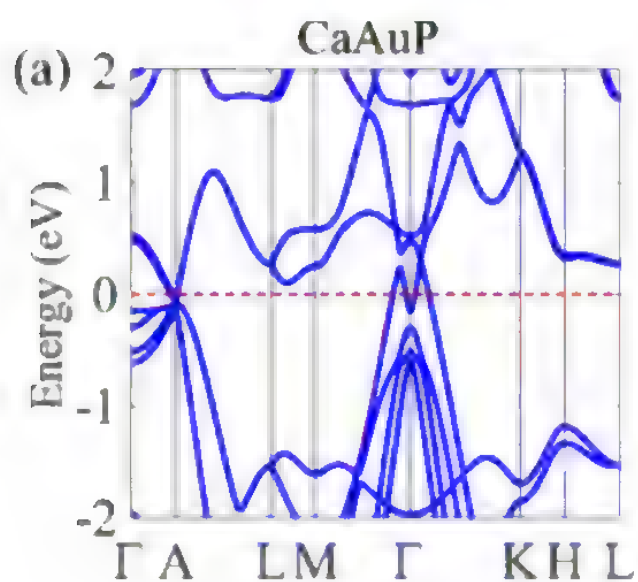
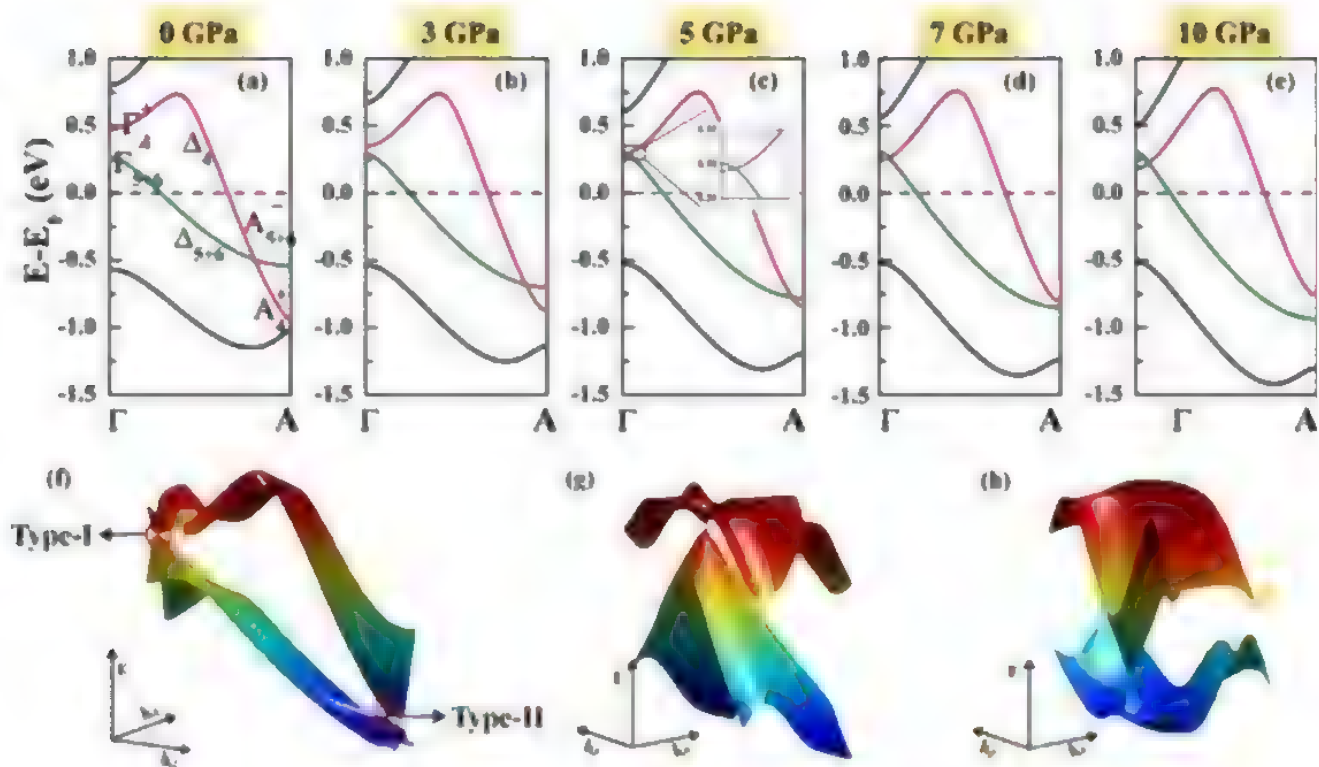




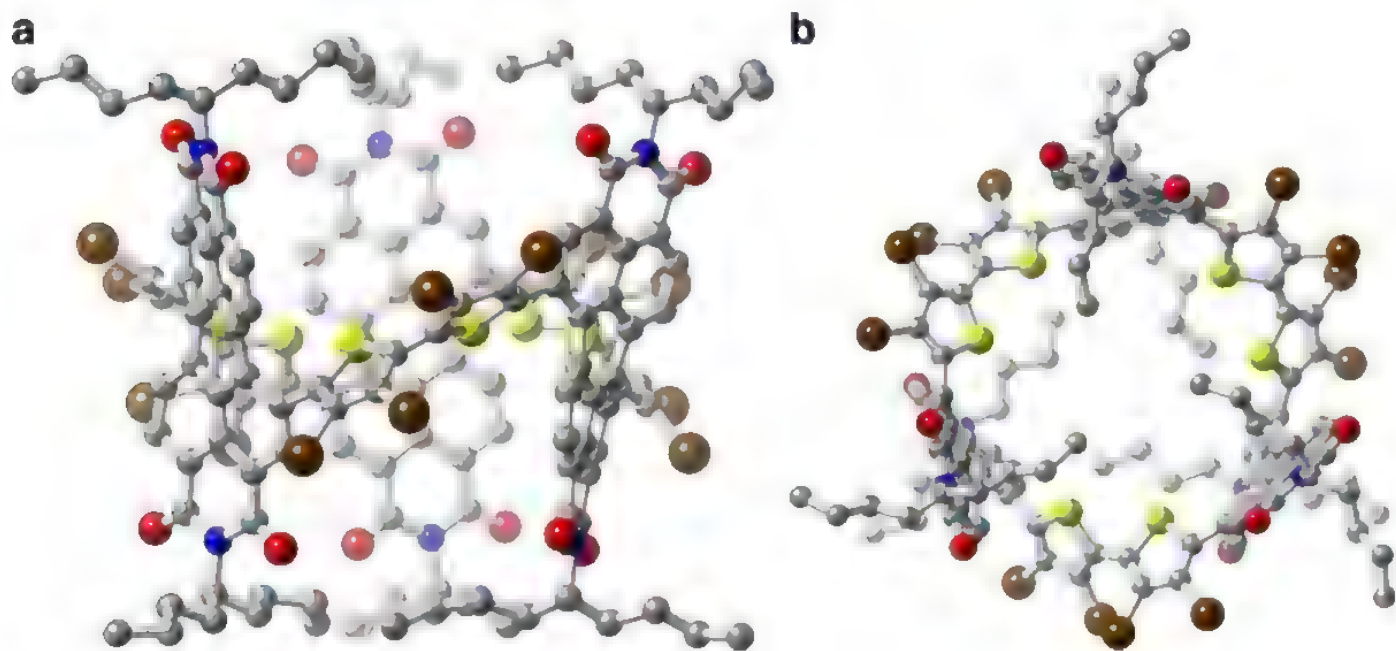
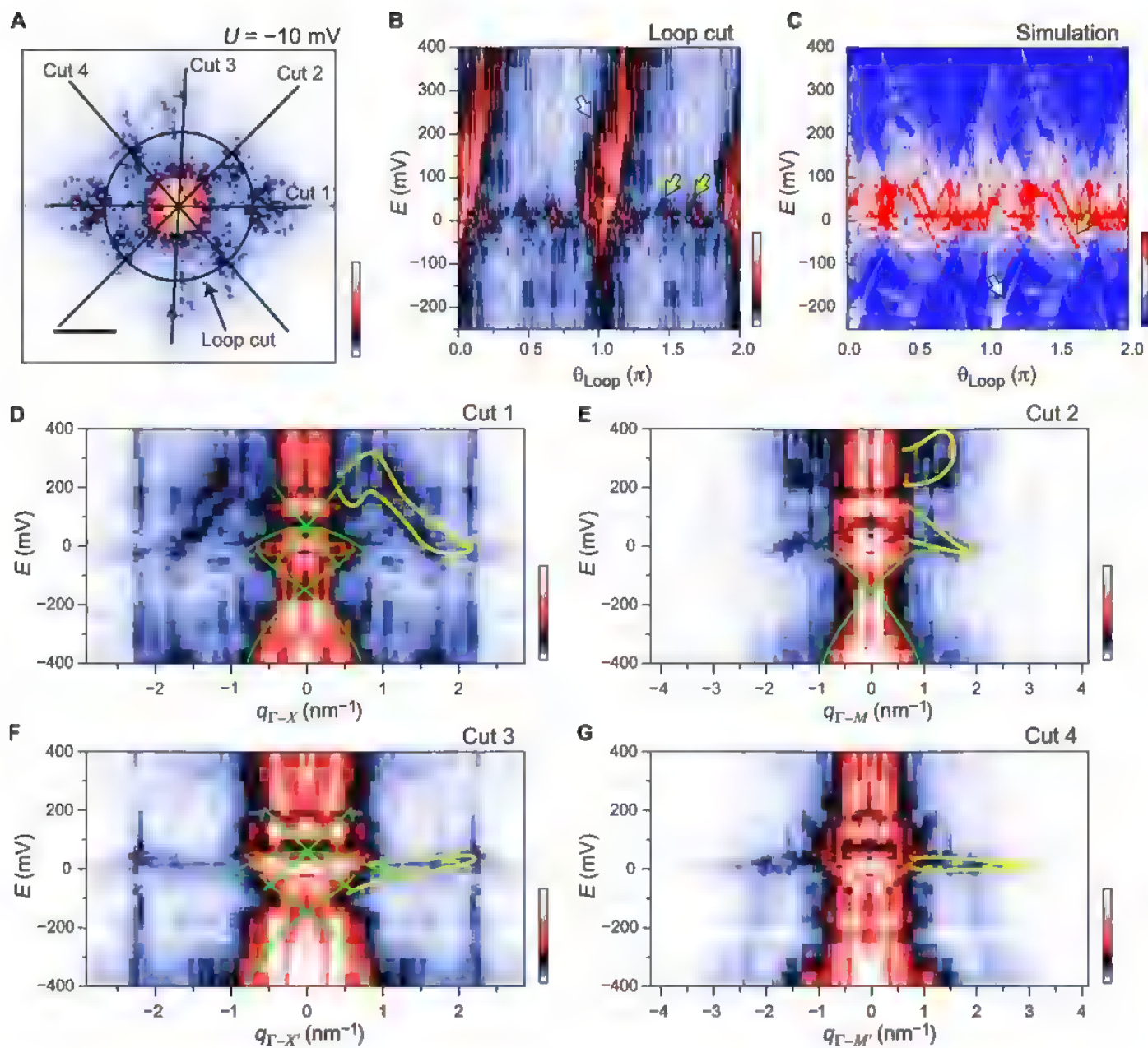




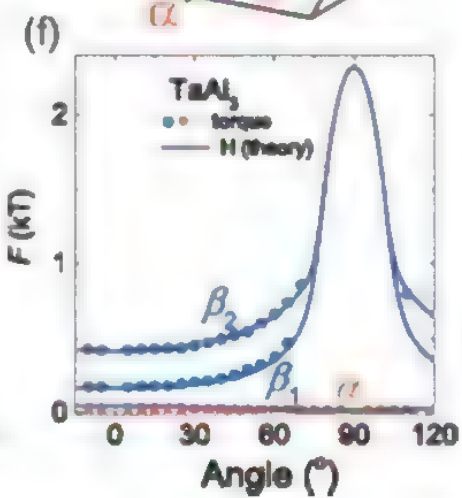
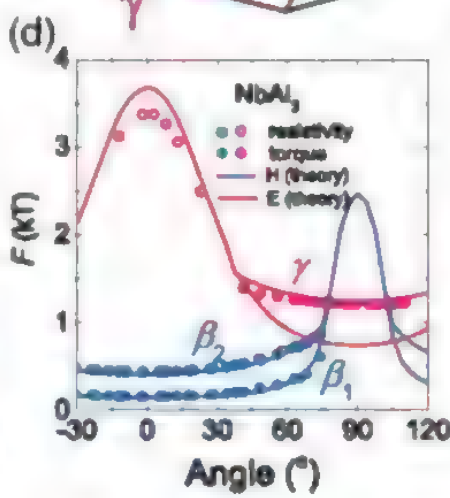
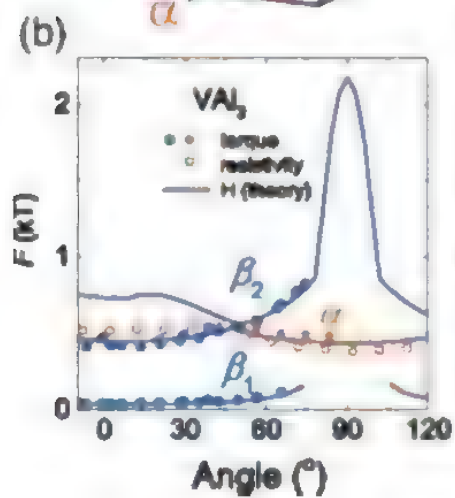
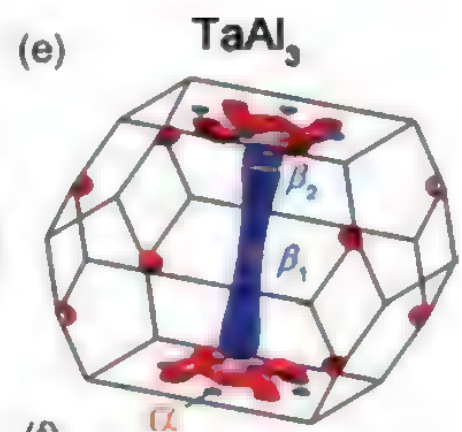
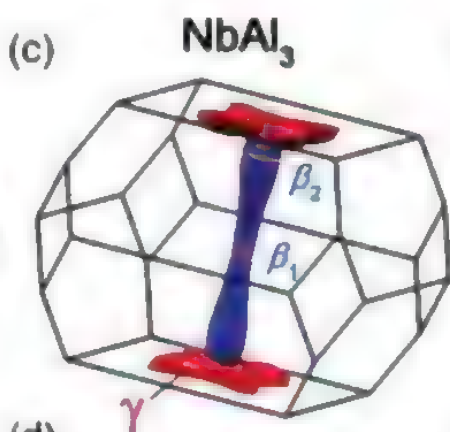
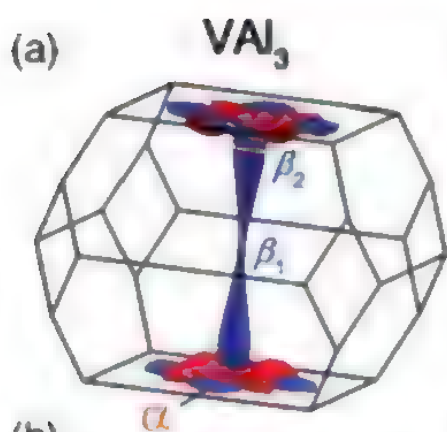
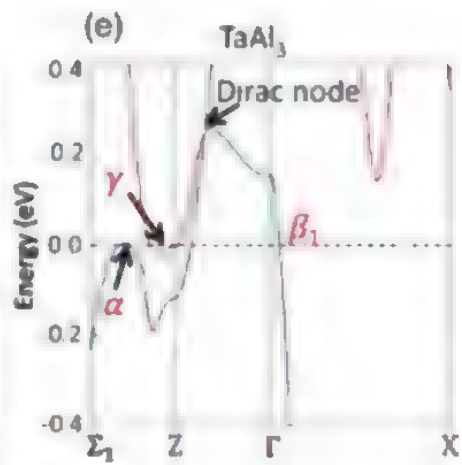
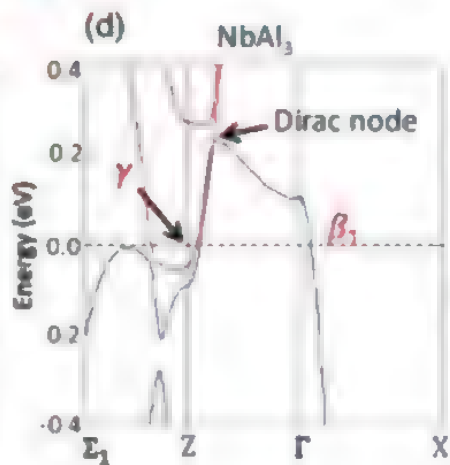
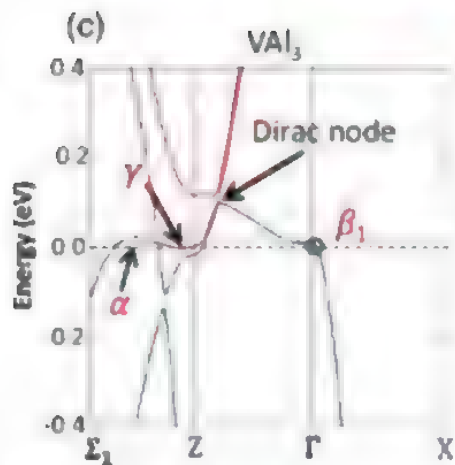
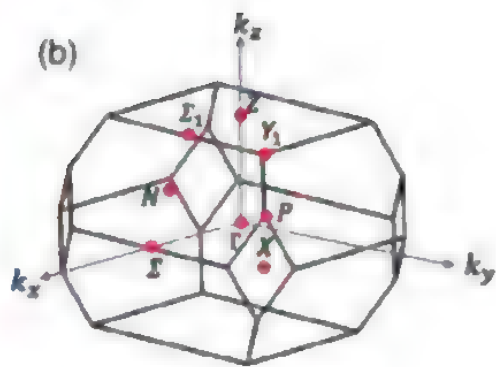
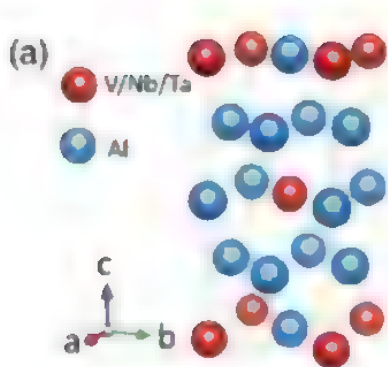


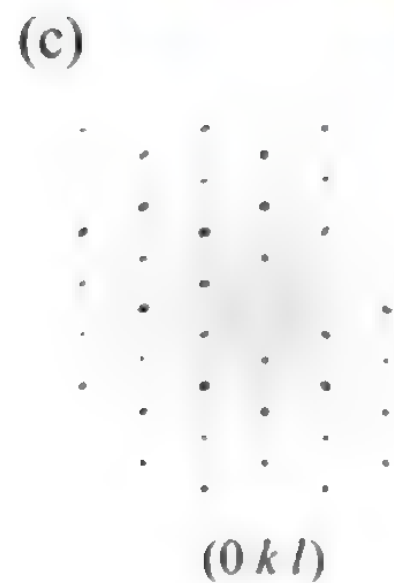
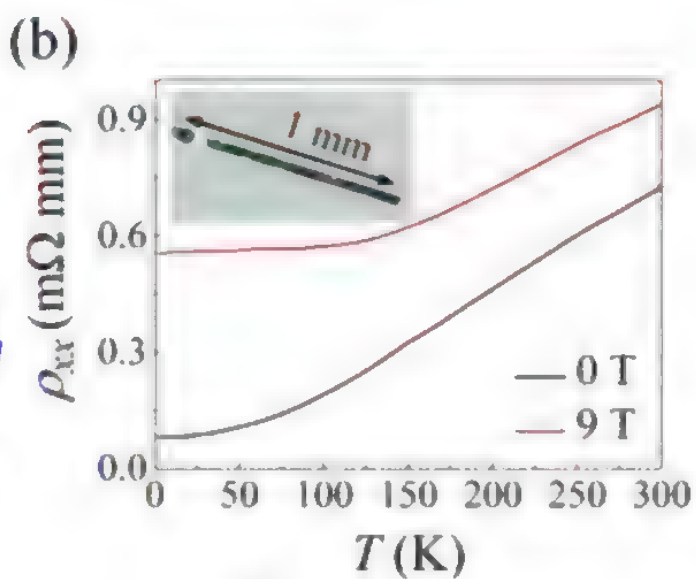
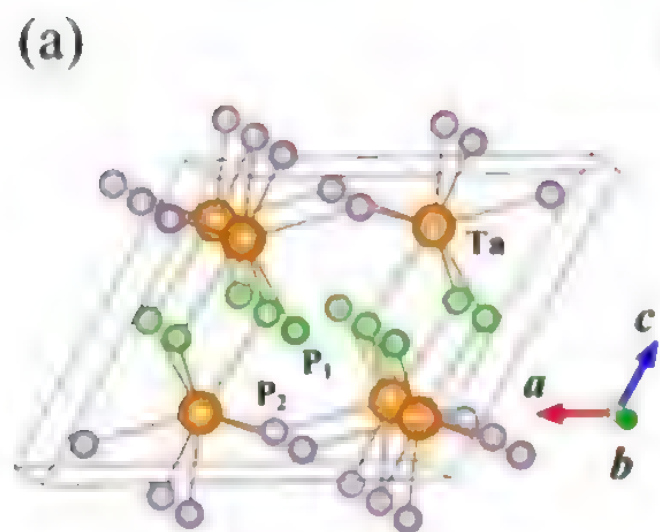
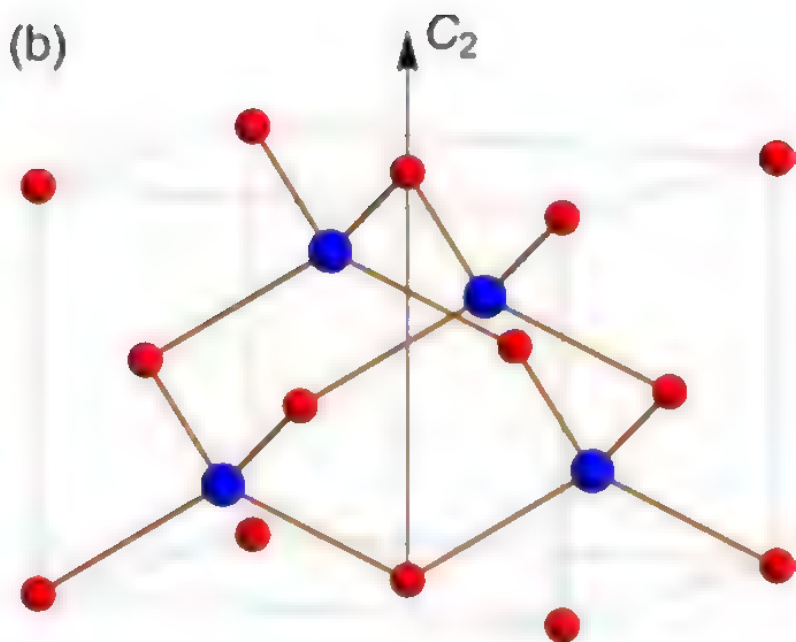
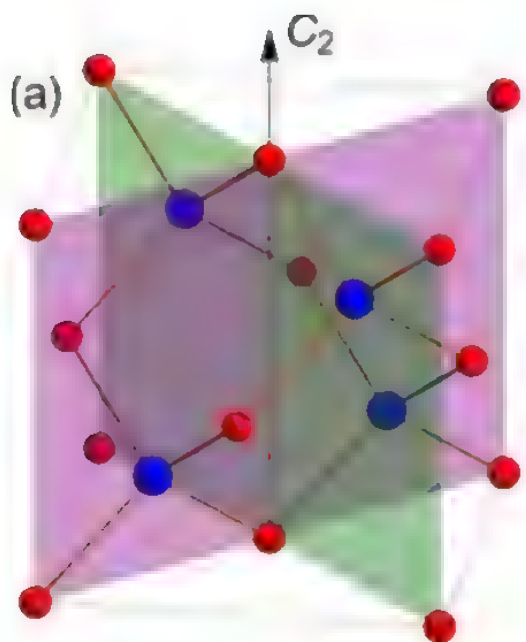


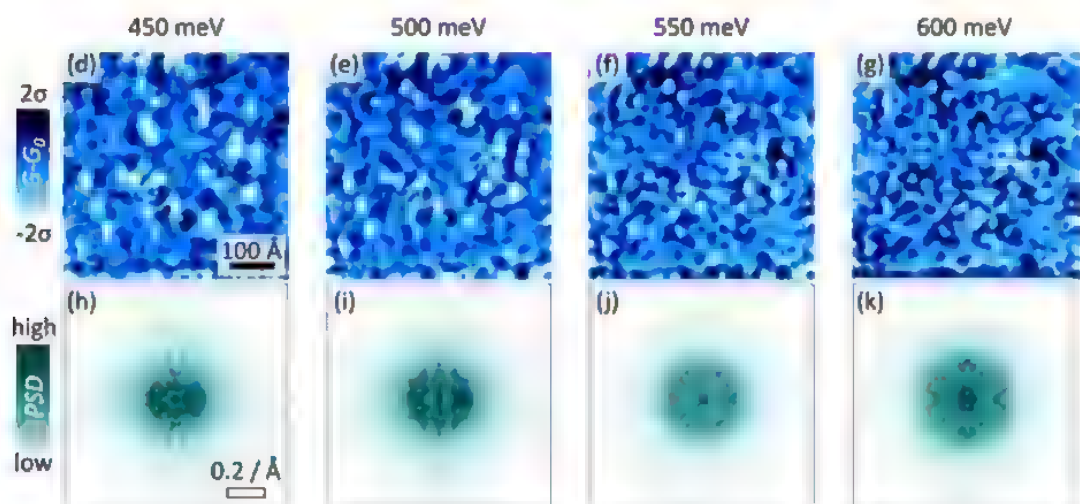
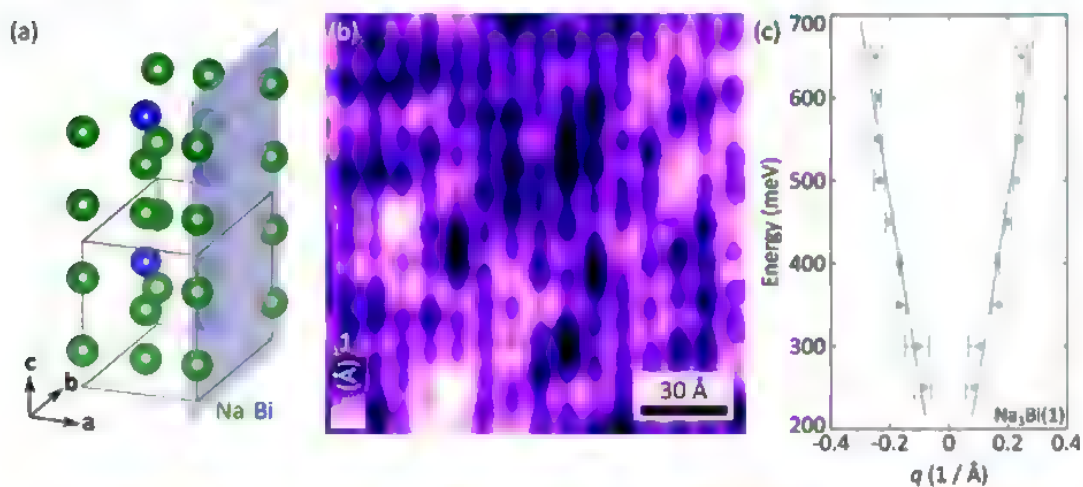
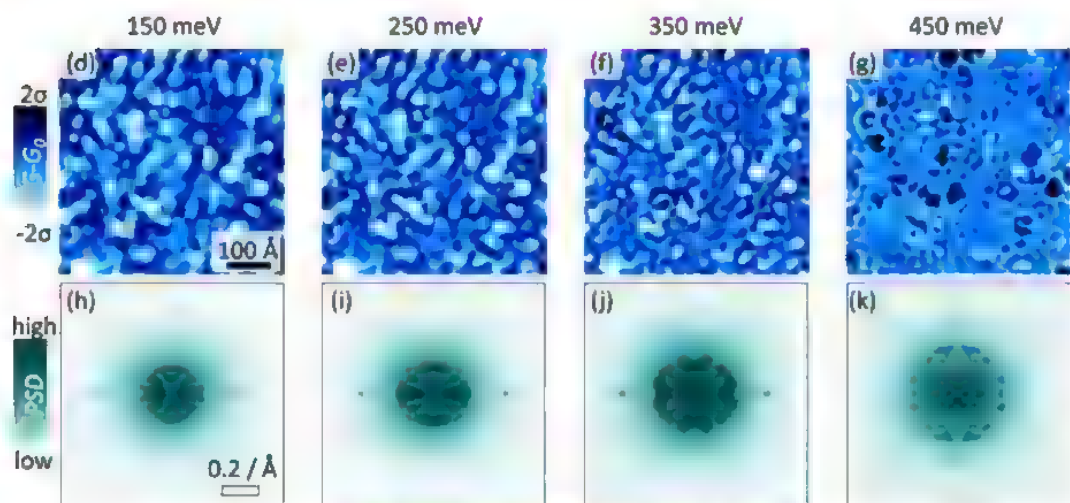
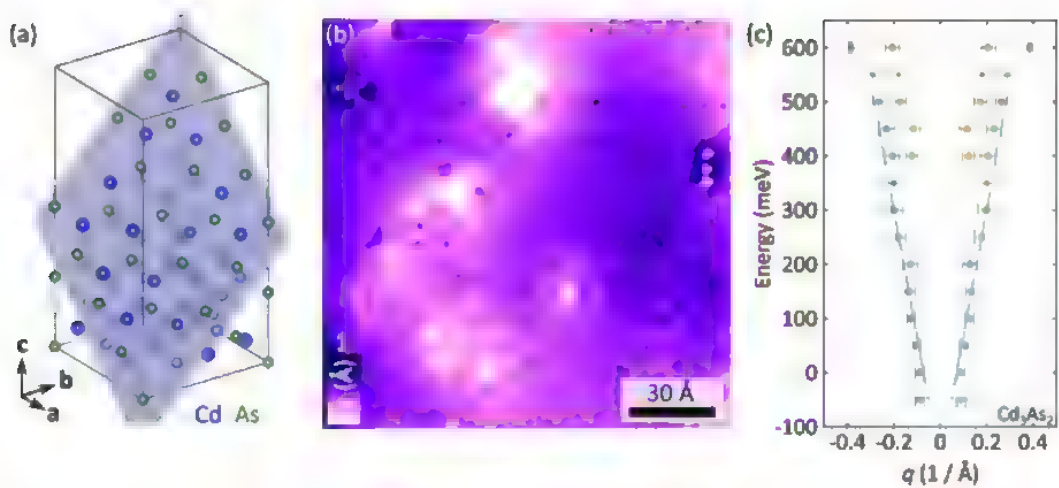


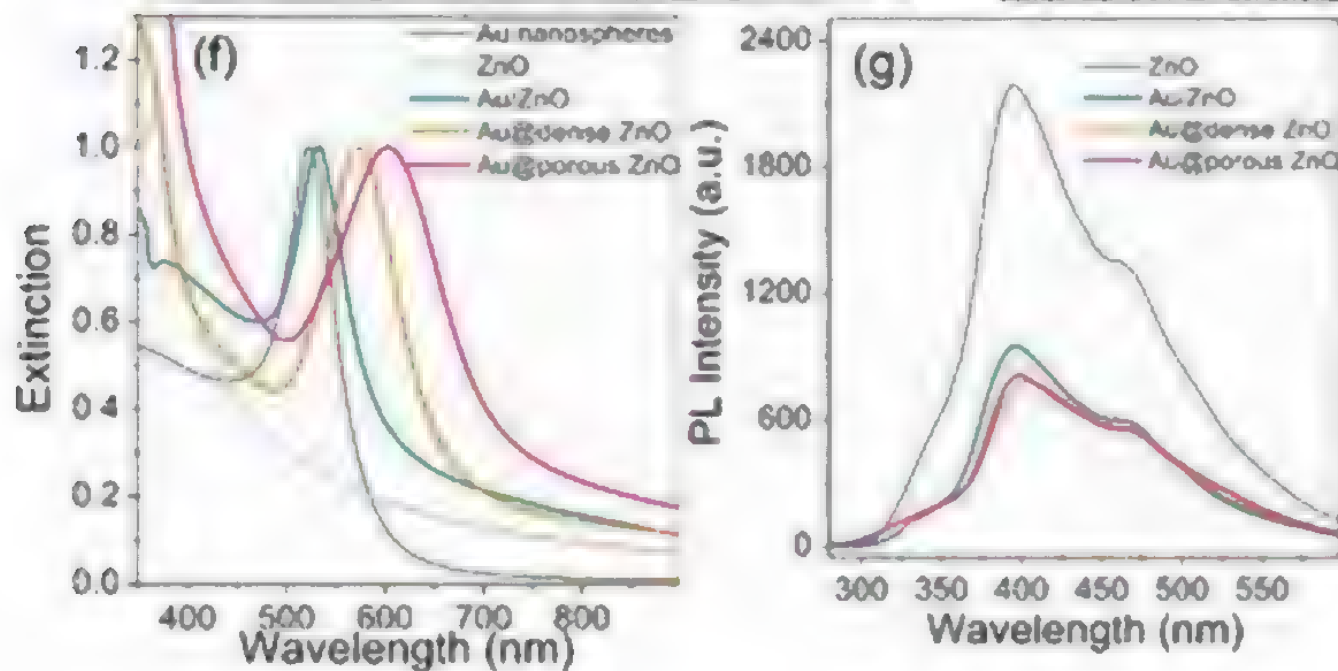
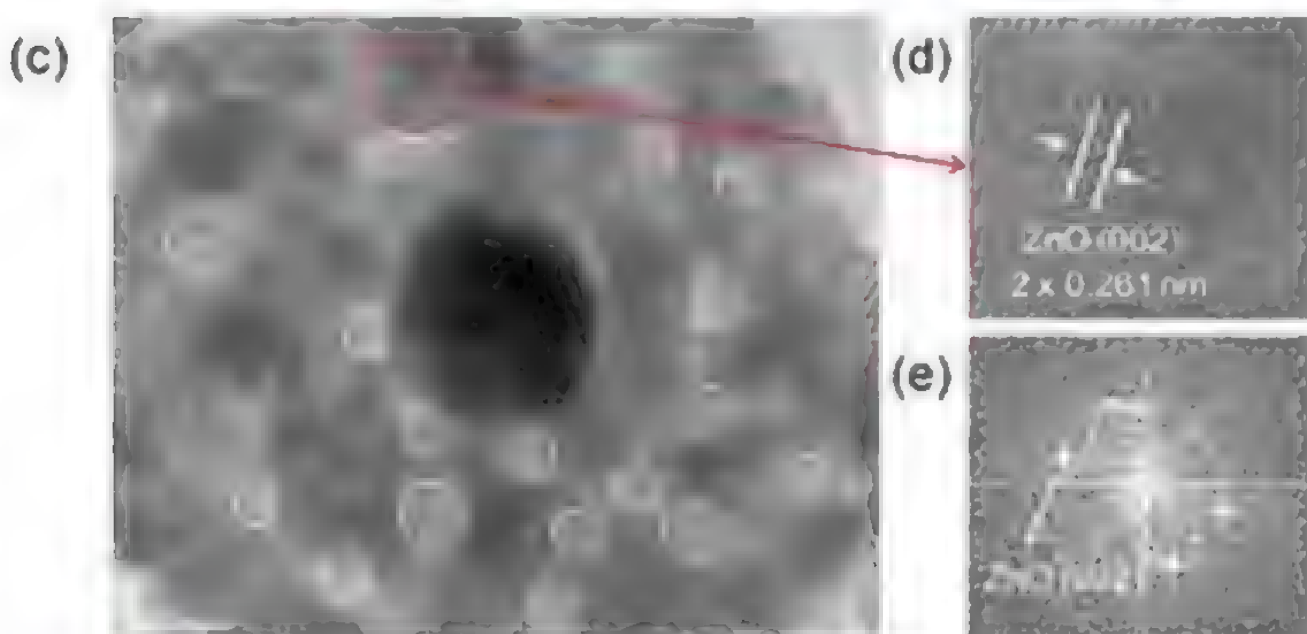
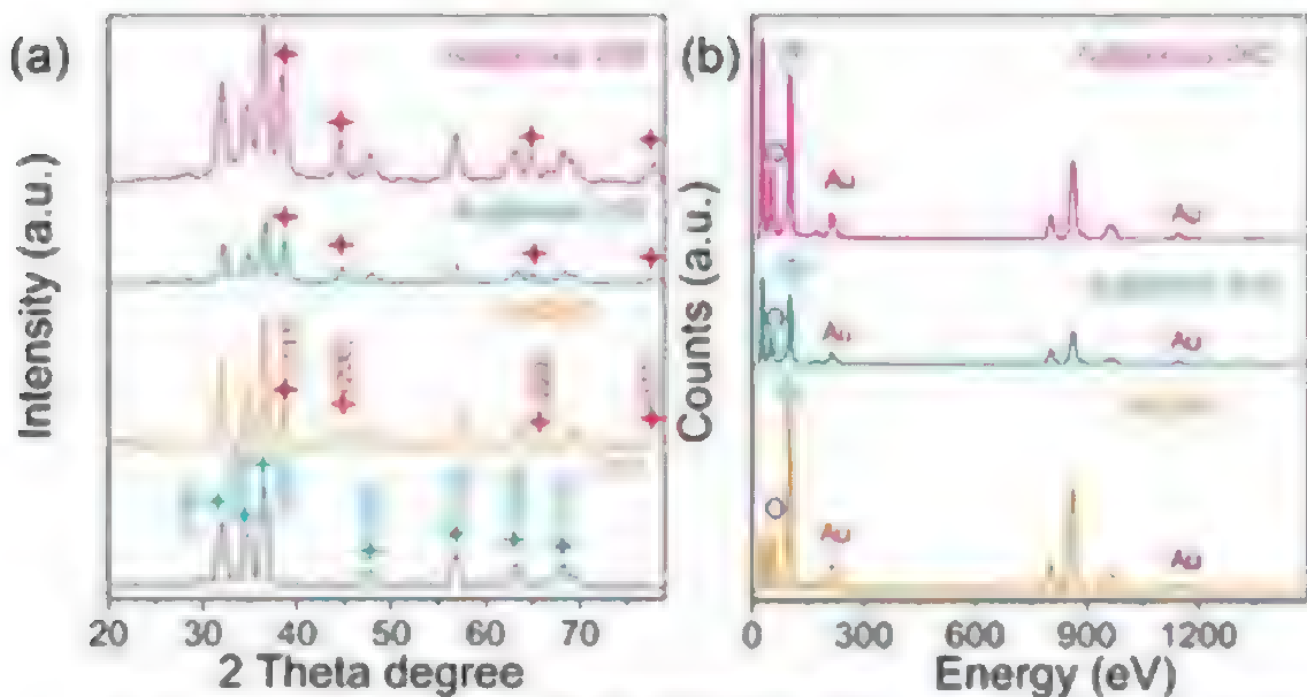












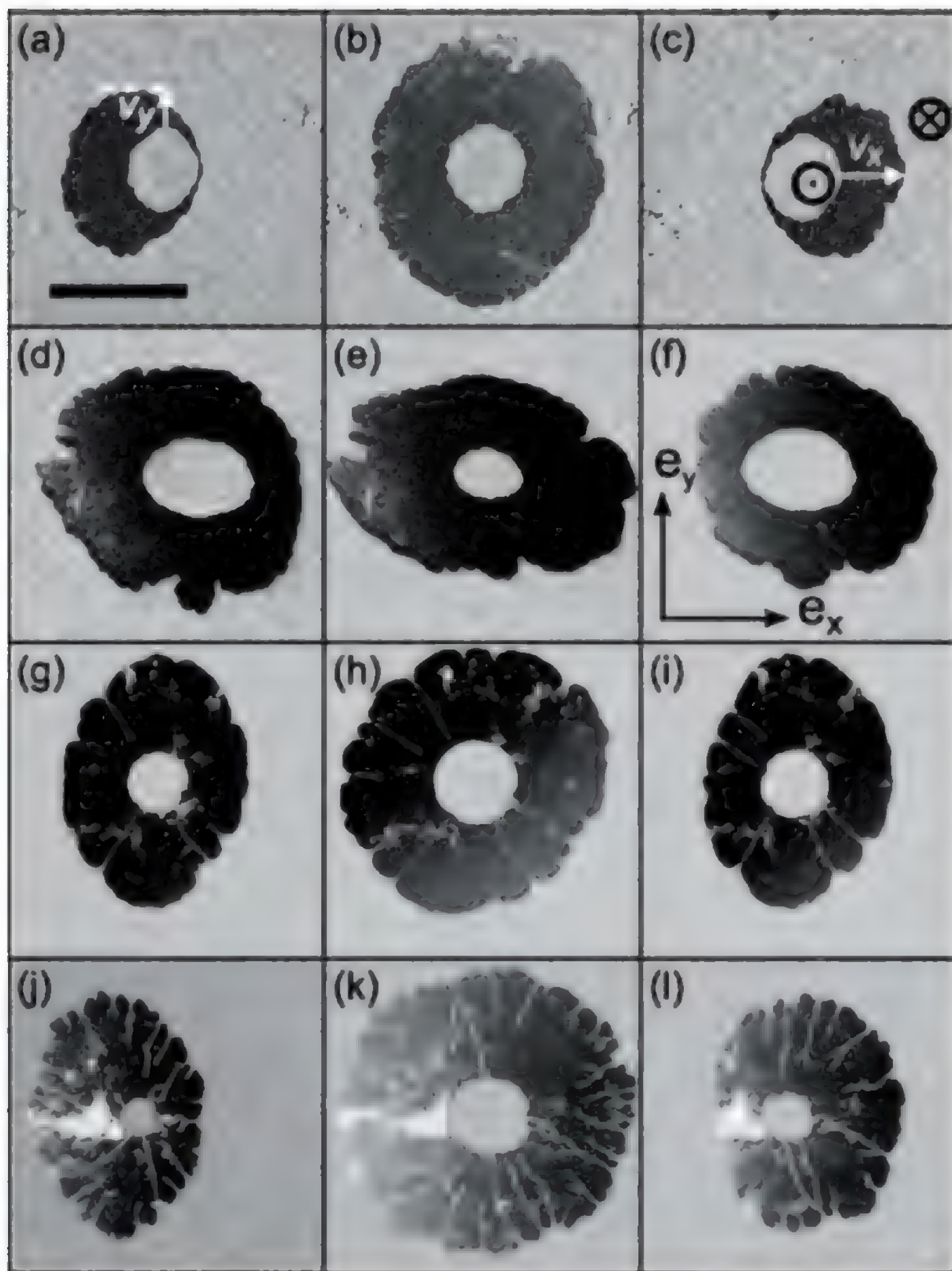


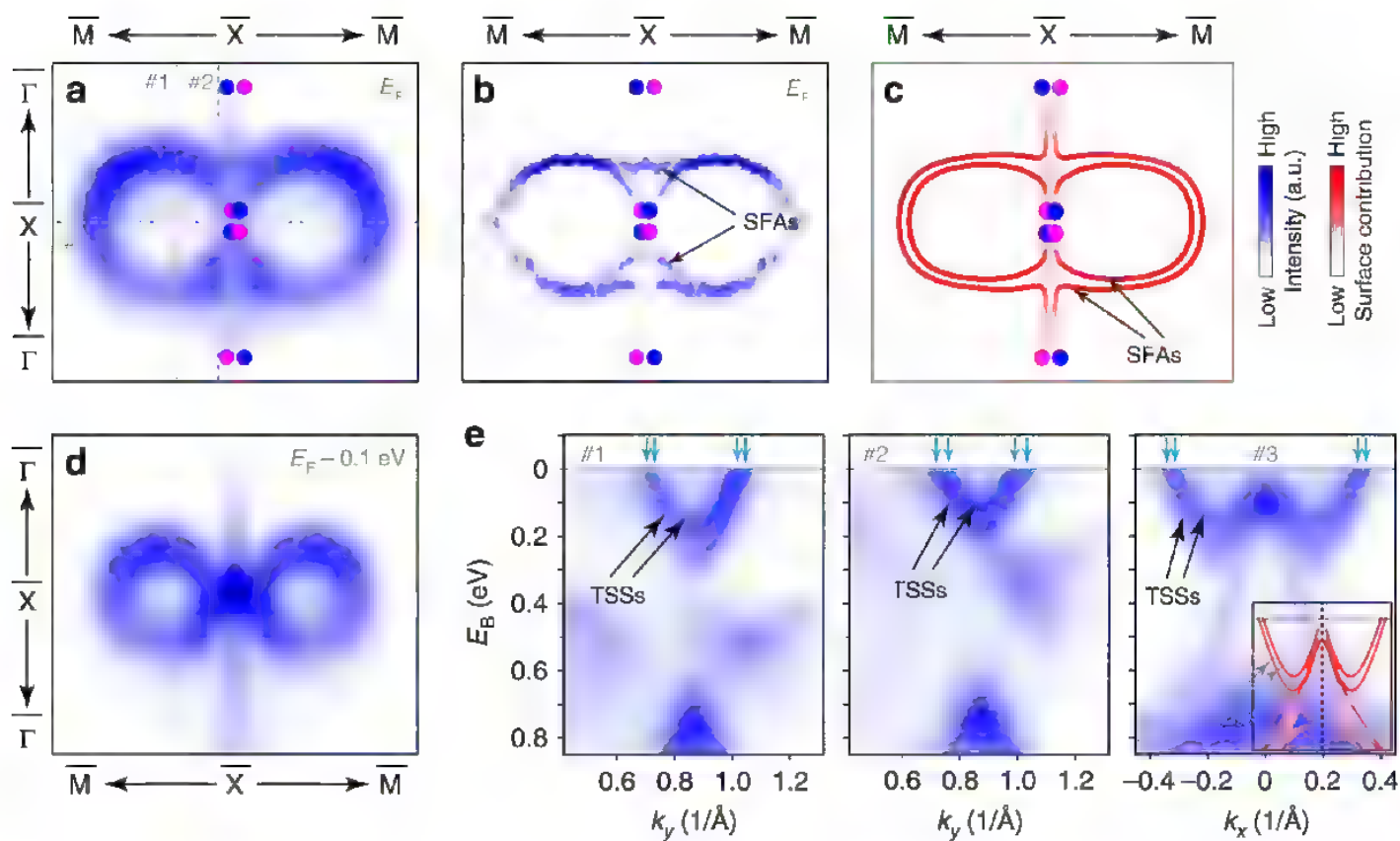
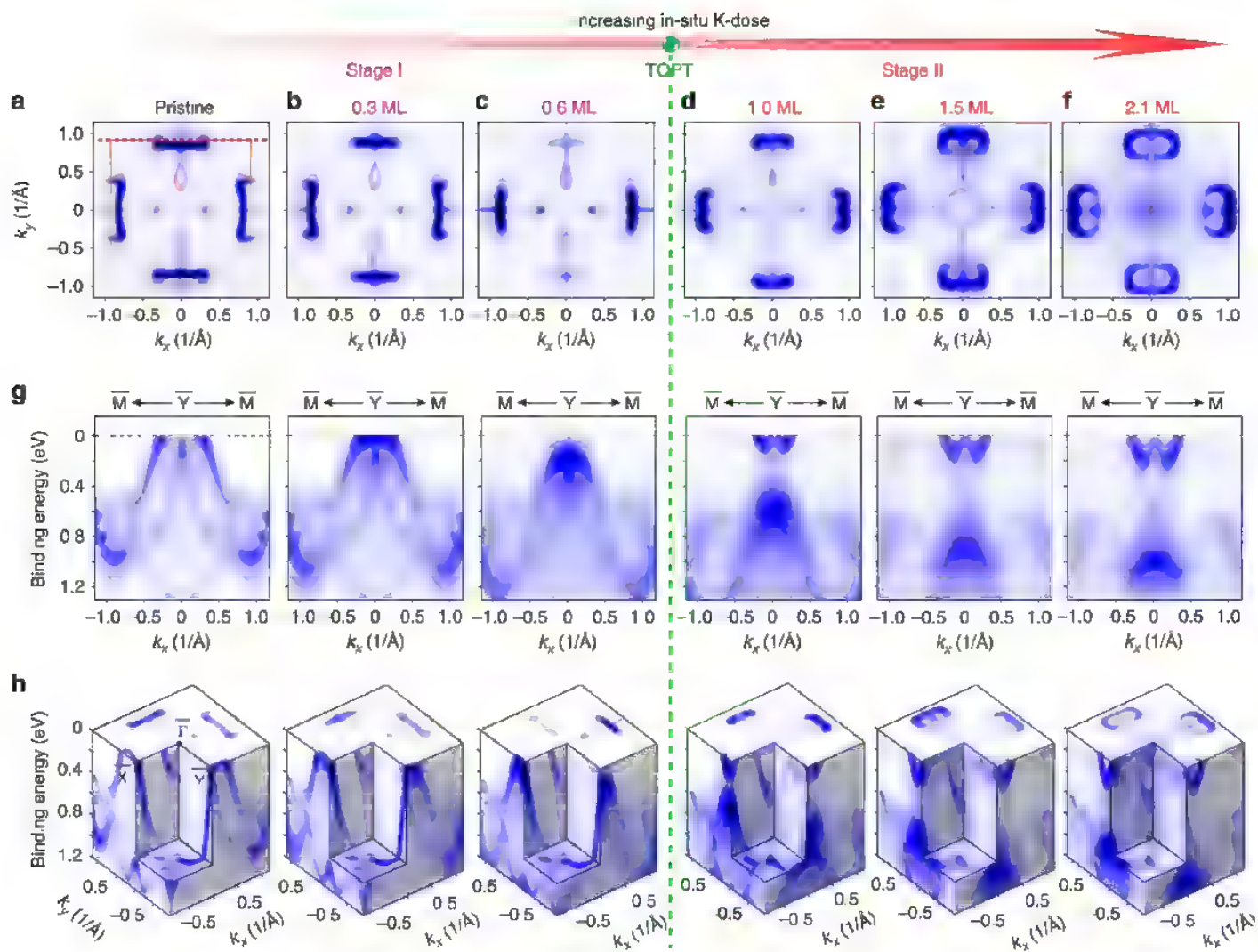
$\mu_0 H_x = -50 \text{ mT}$

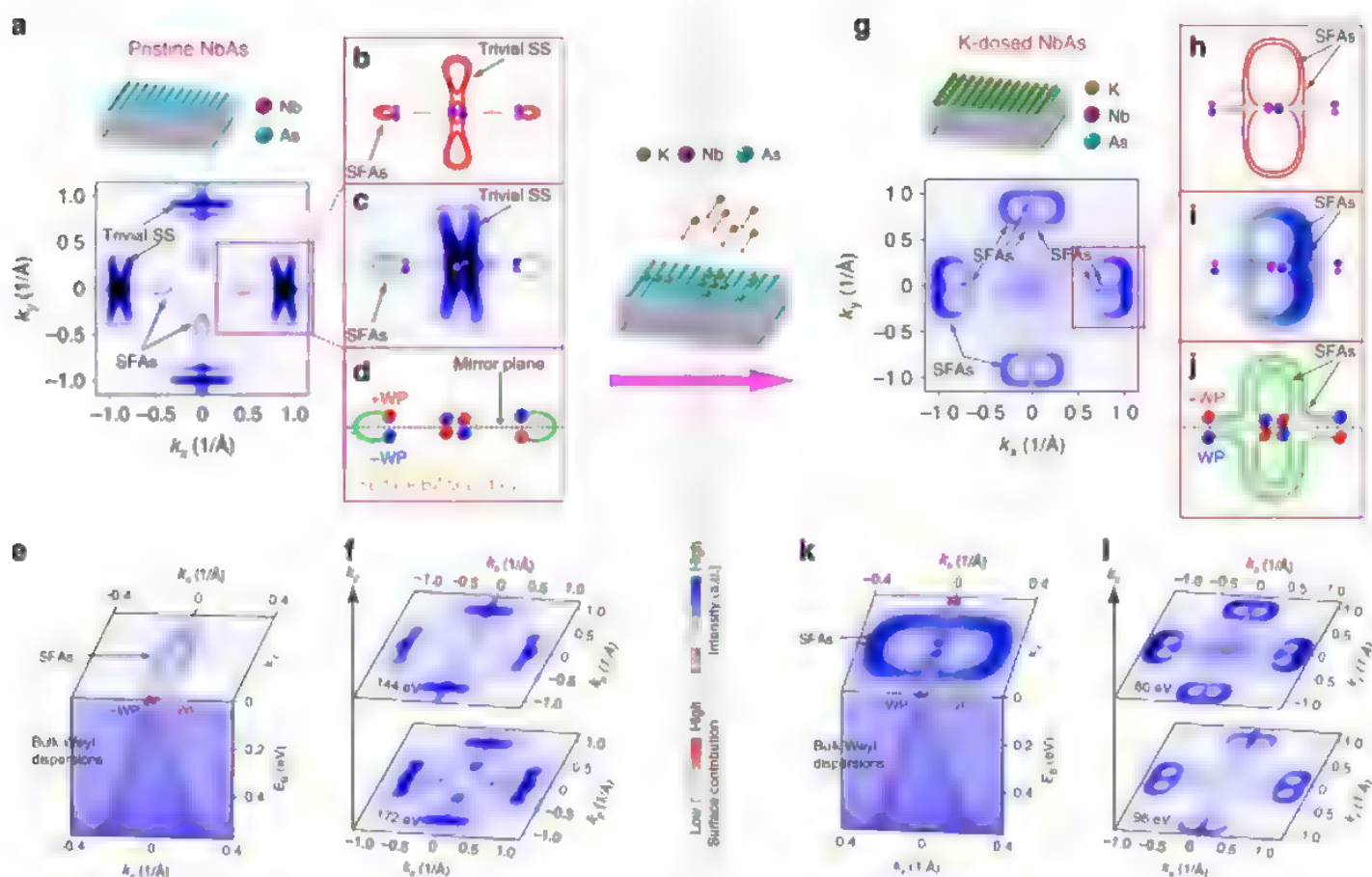
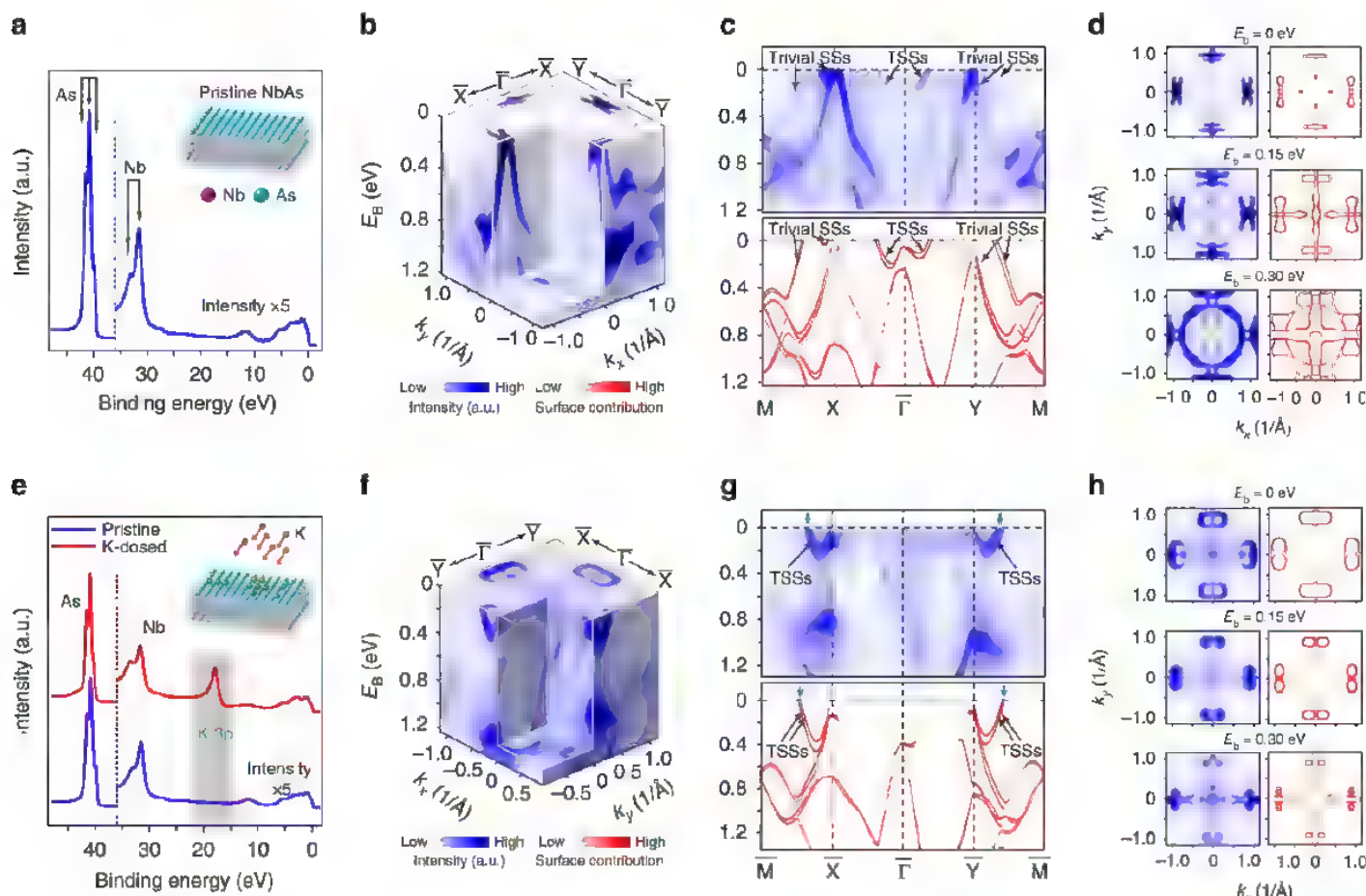


$\mu_0 H_x = 0 \text{ mT}$

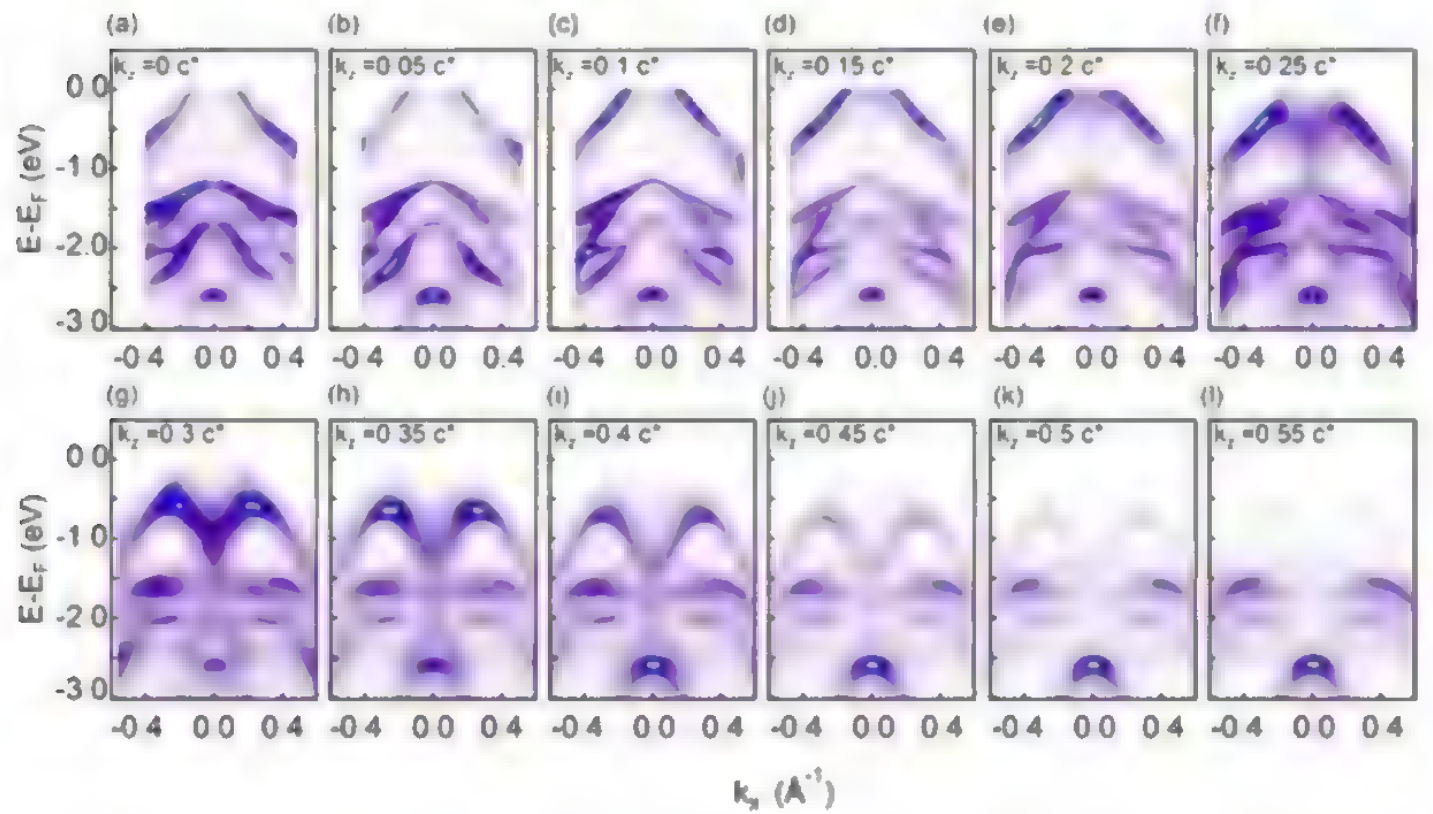
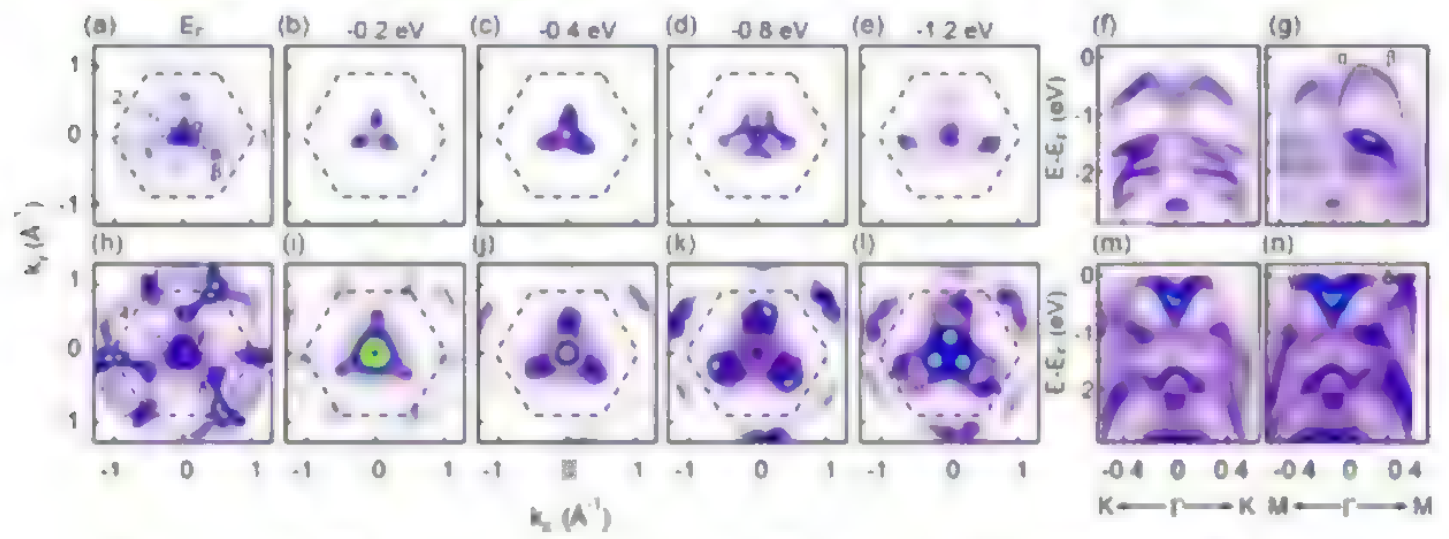
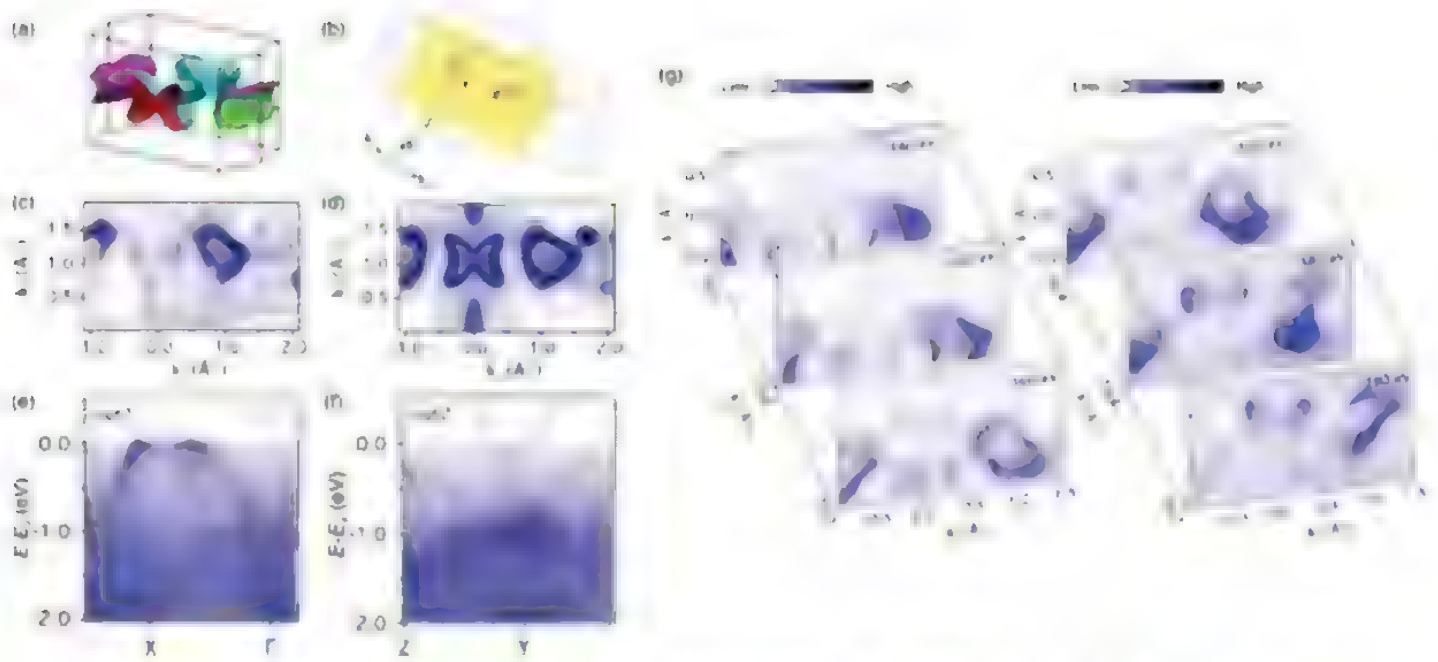
$\mu_0 H_x = +50 \text{ mT}$





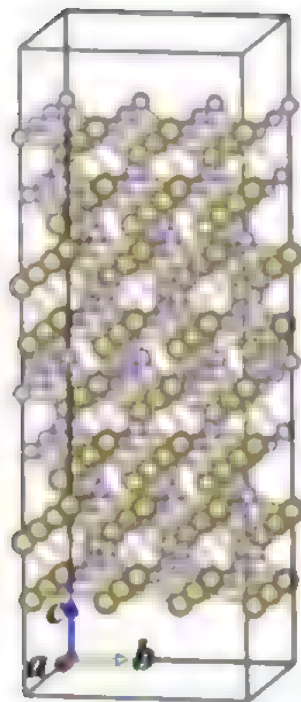








(a)



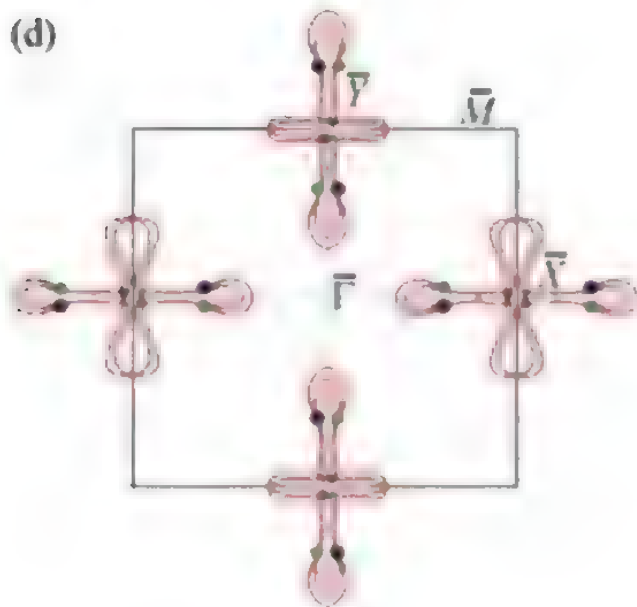
(b)



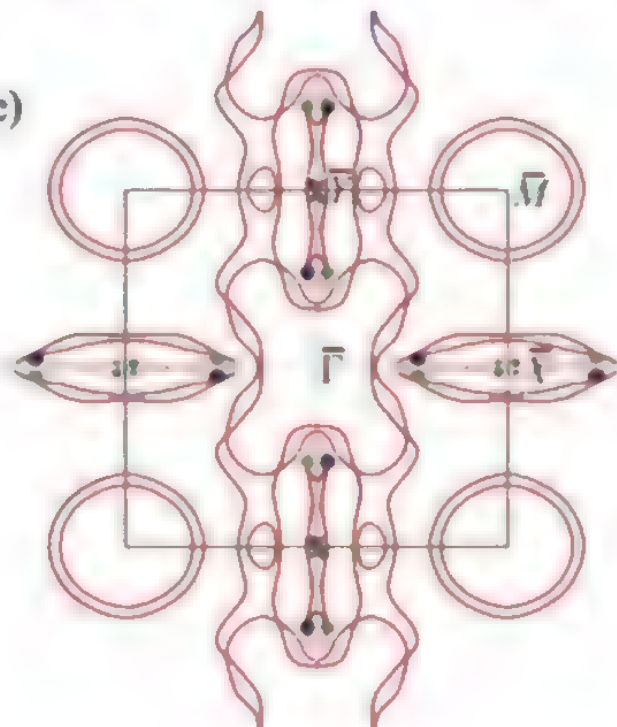
(c)

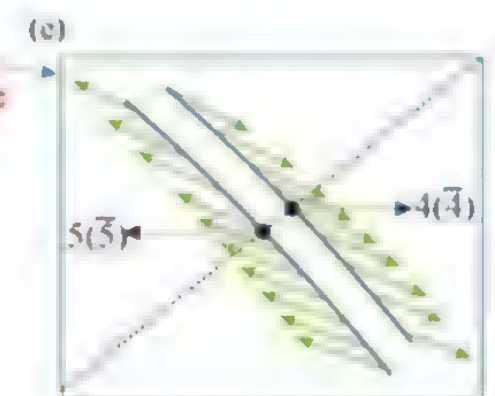
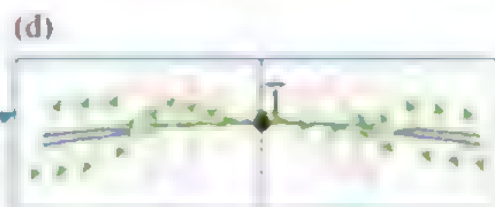
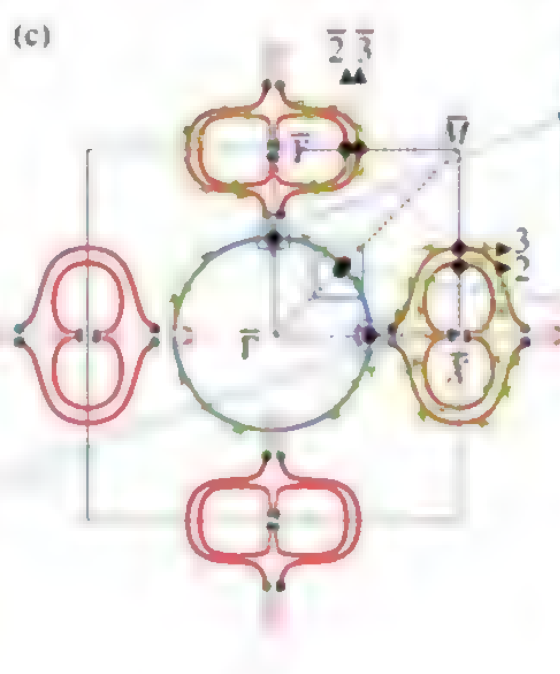
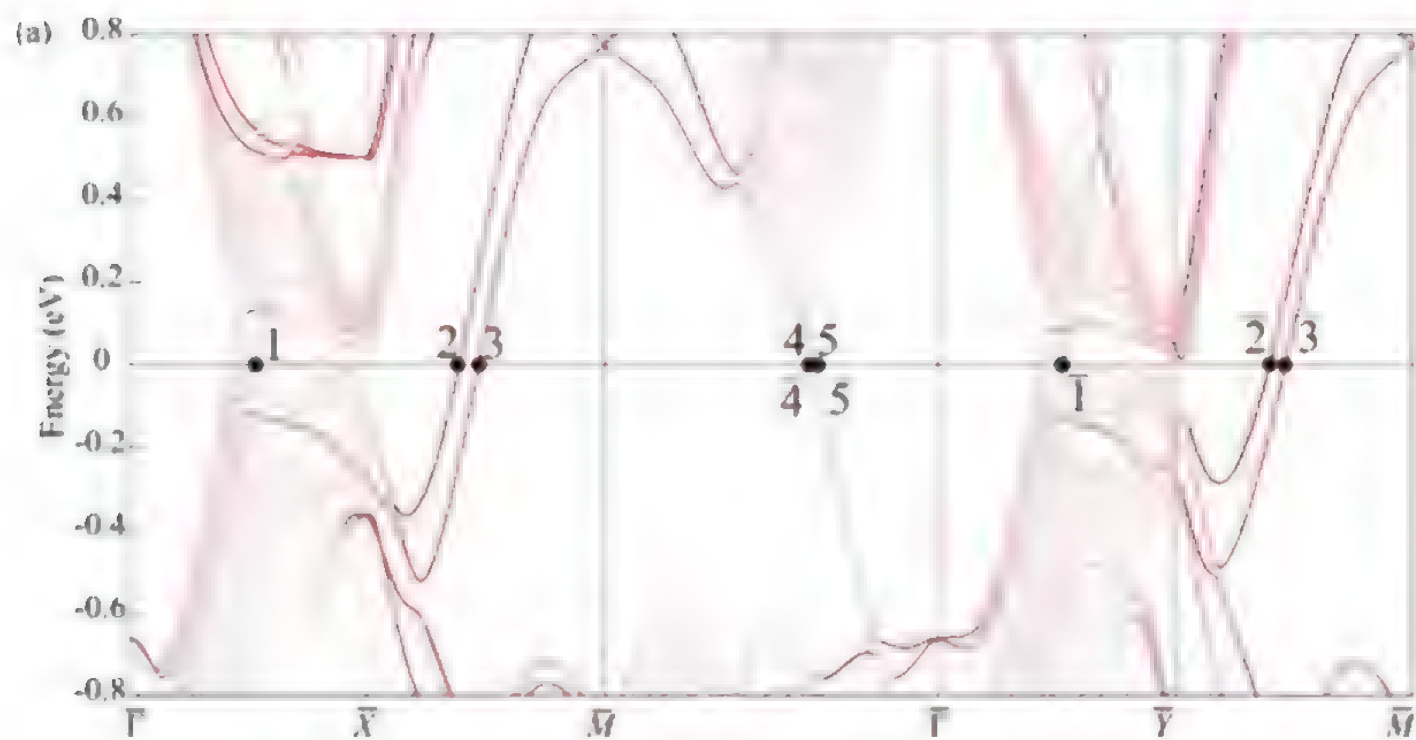


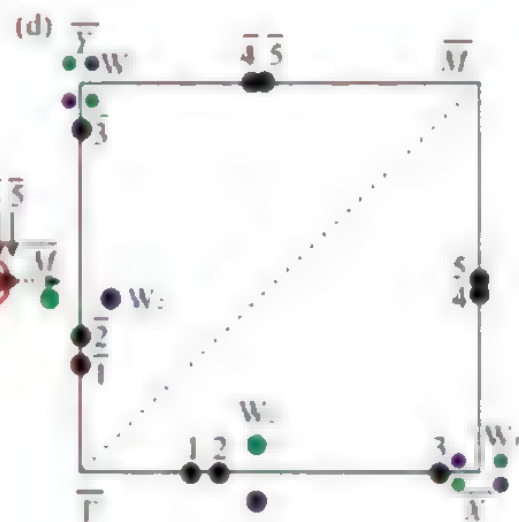
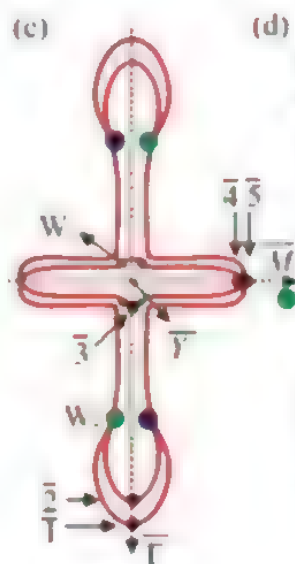
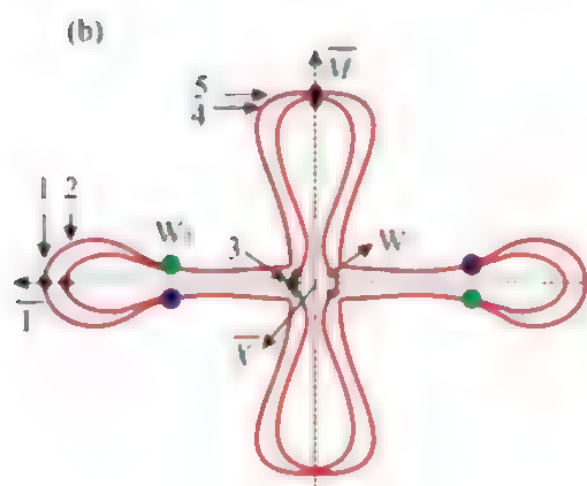
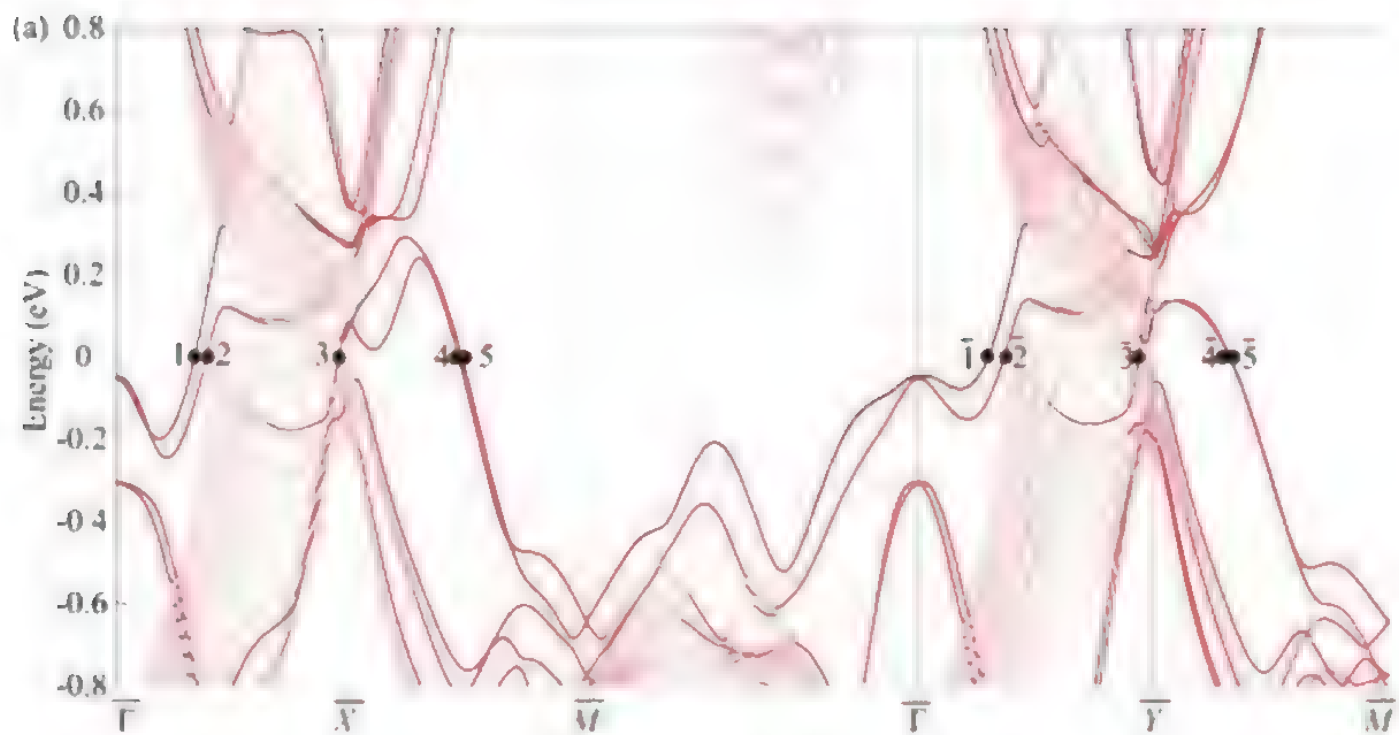
(d)

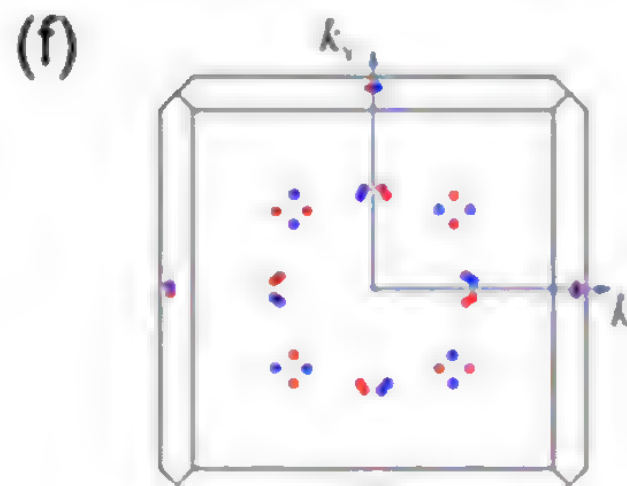
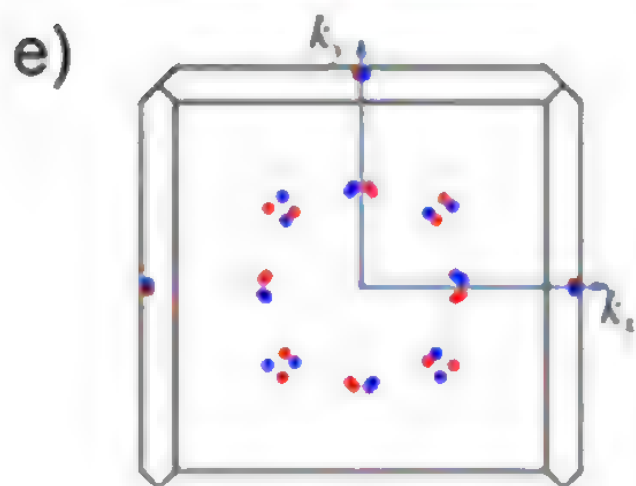
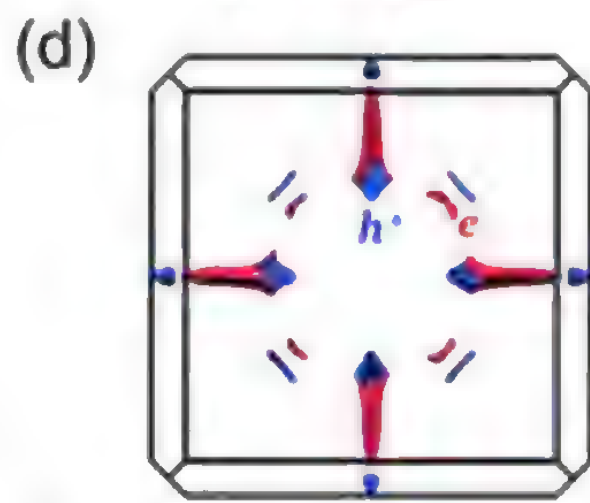
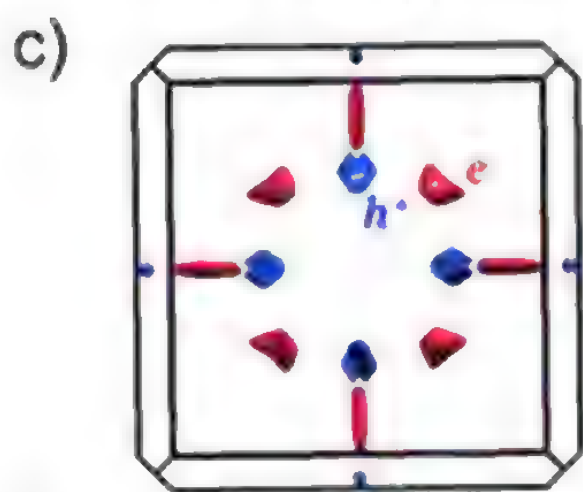
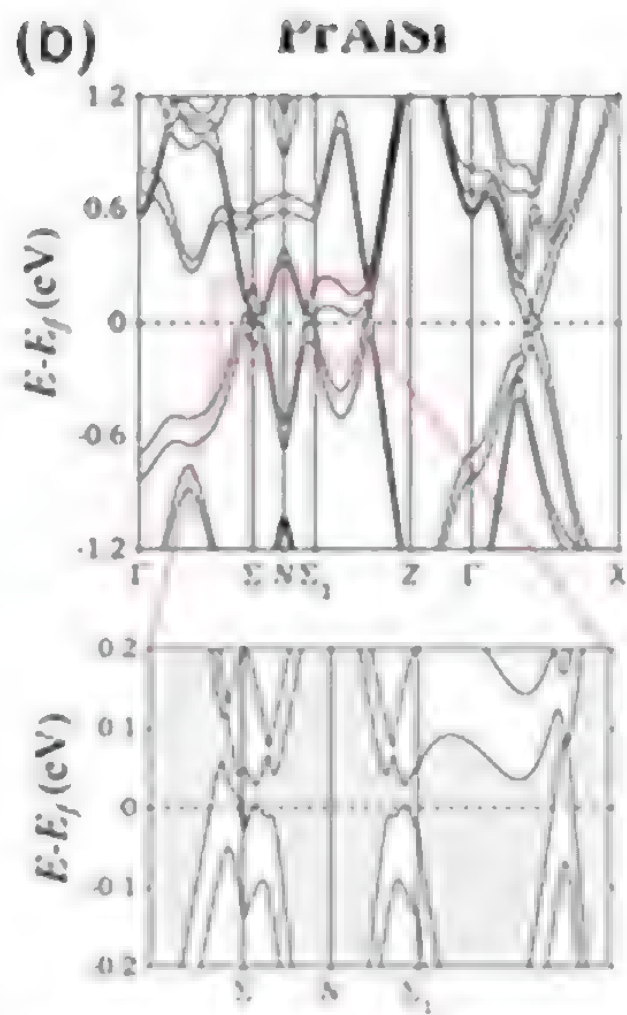
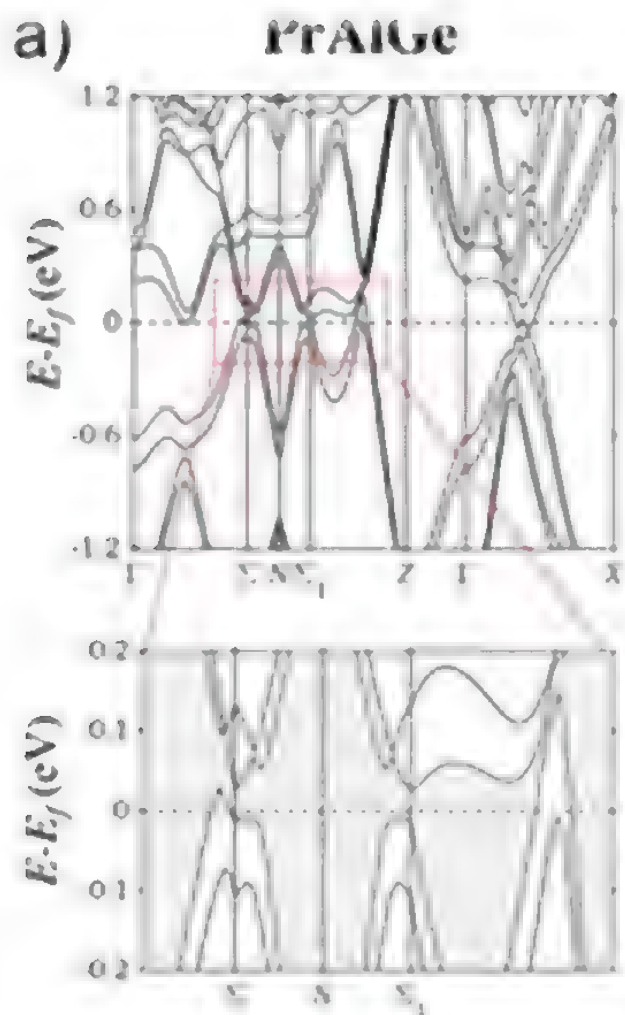


(e)

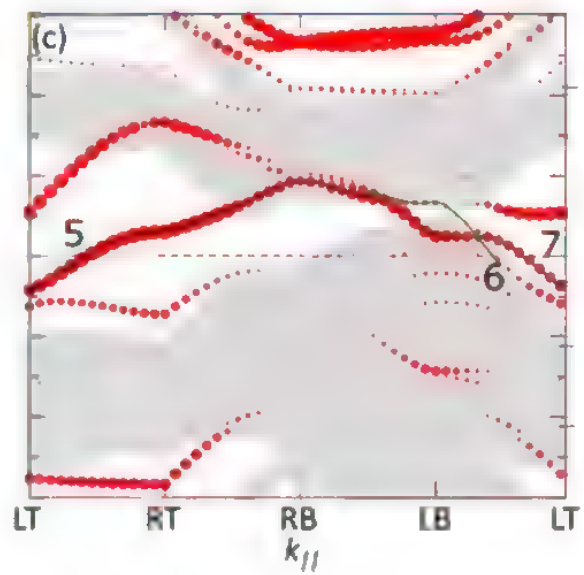
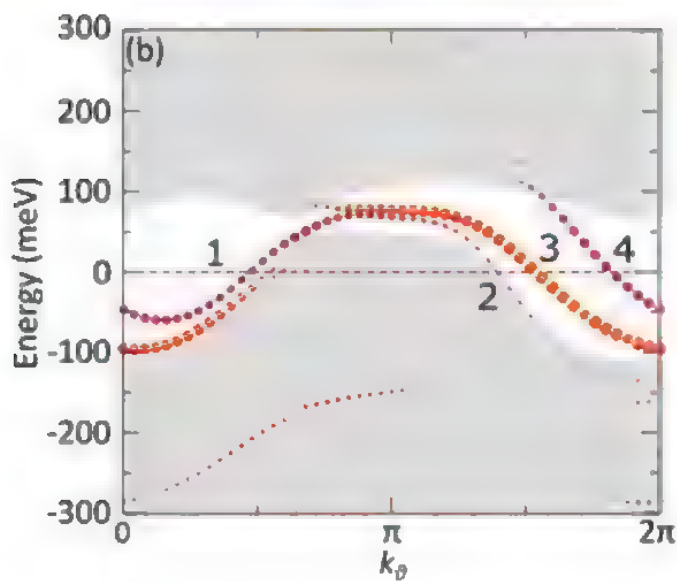
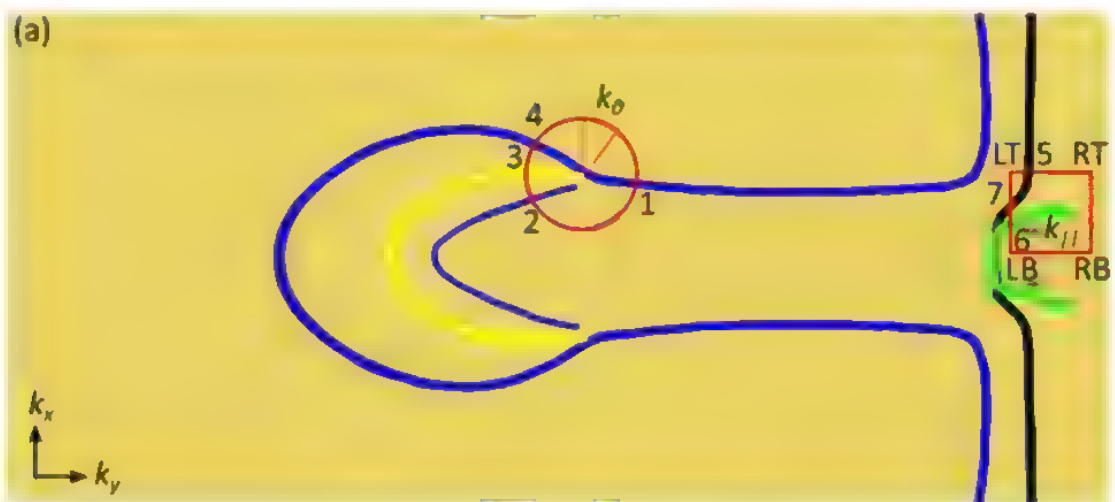
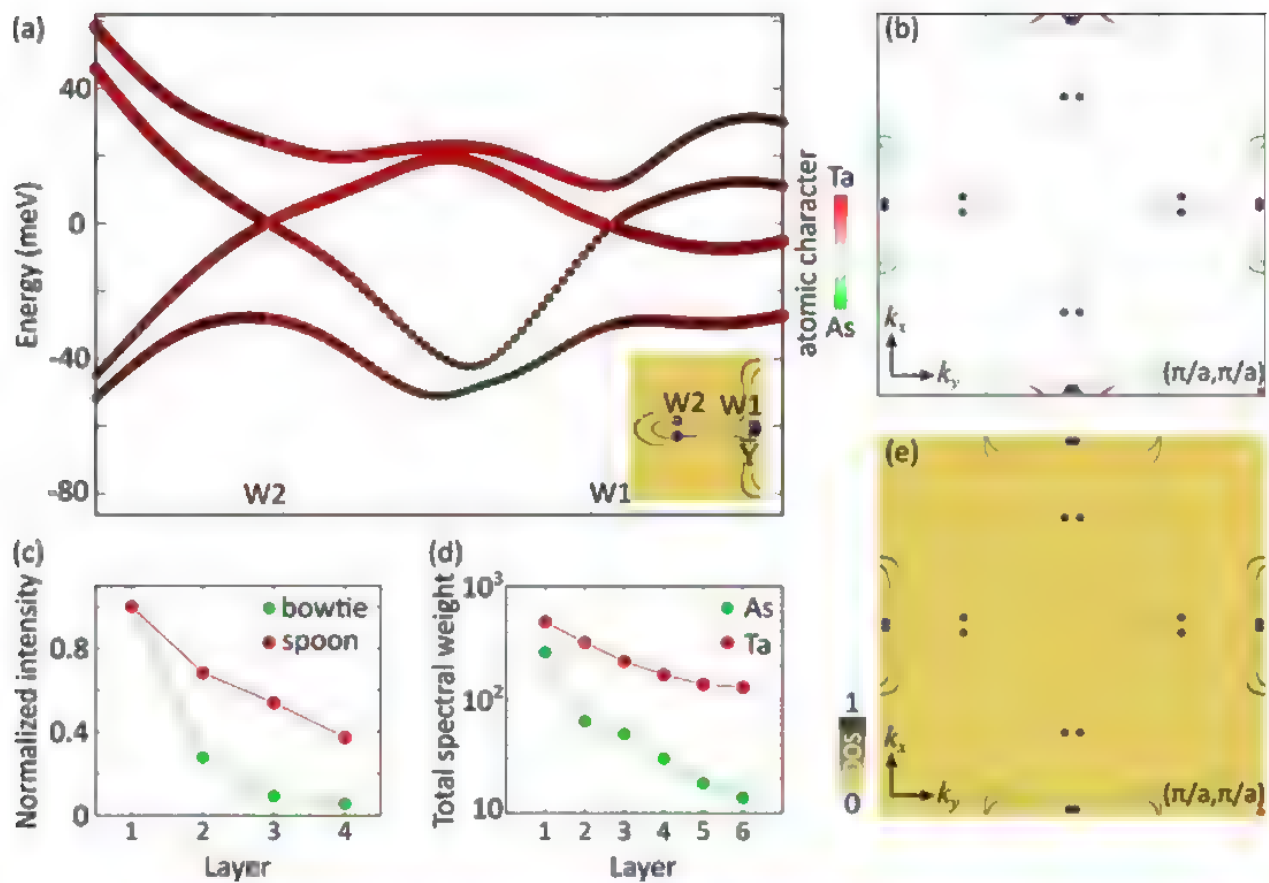






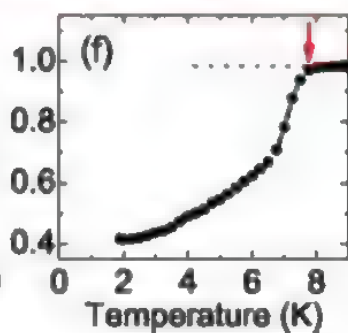
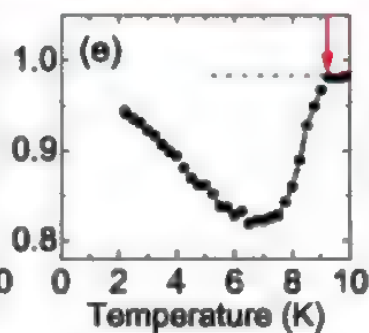
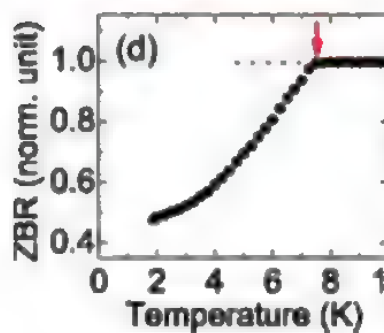
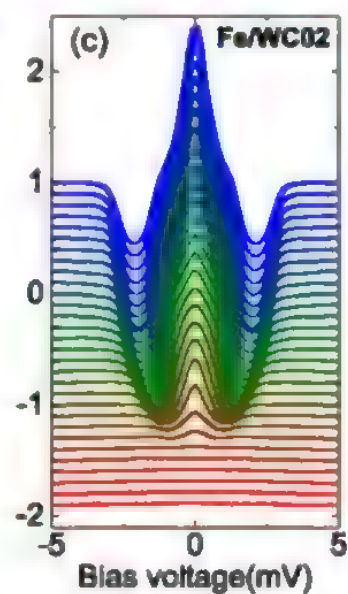
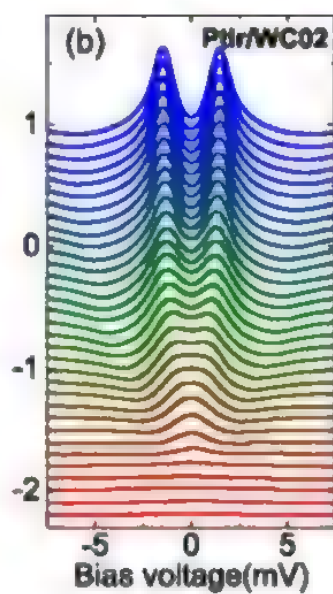
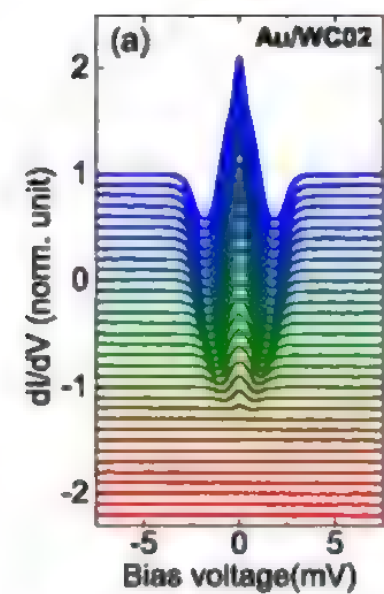
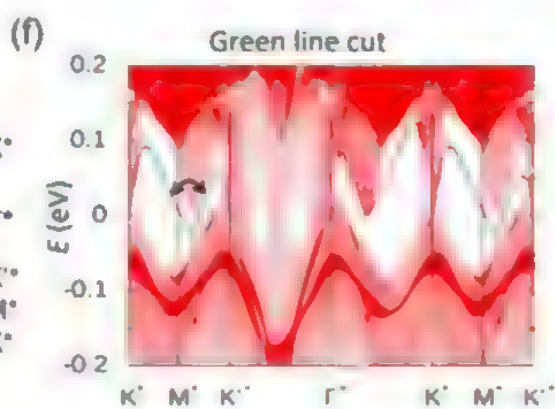
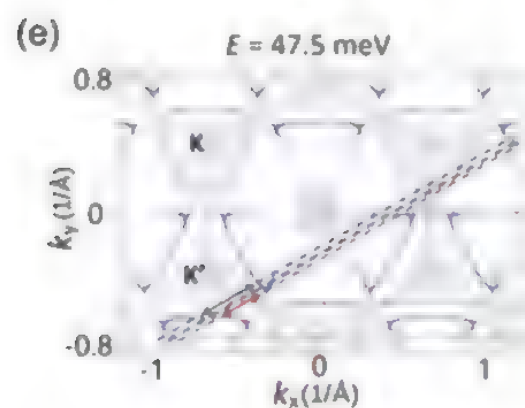
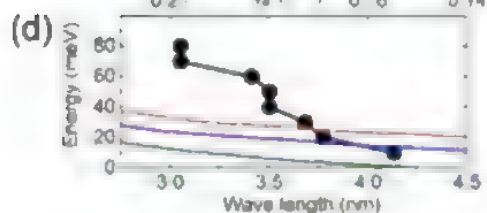
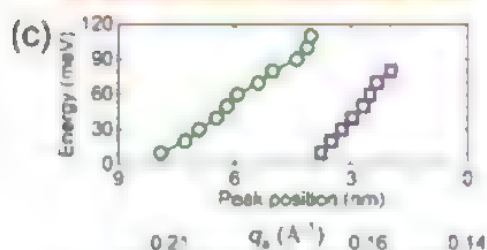
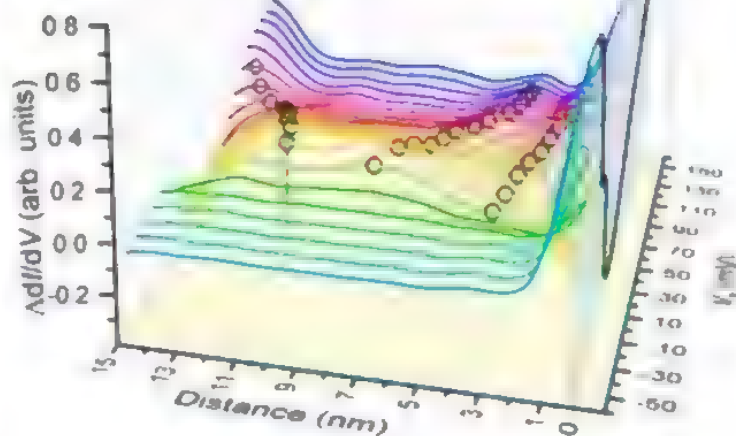


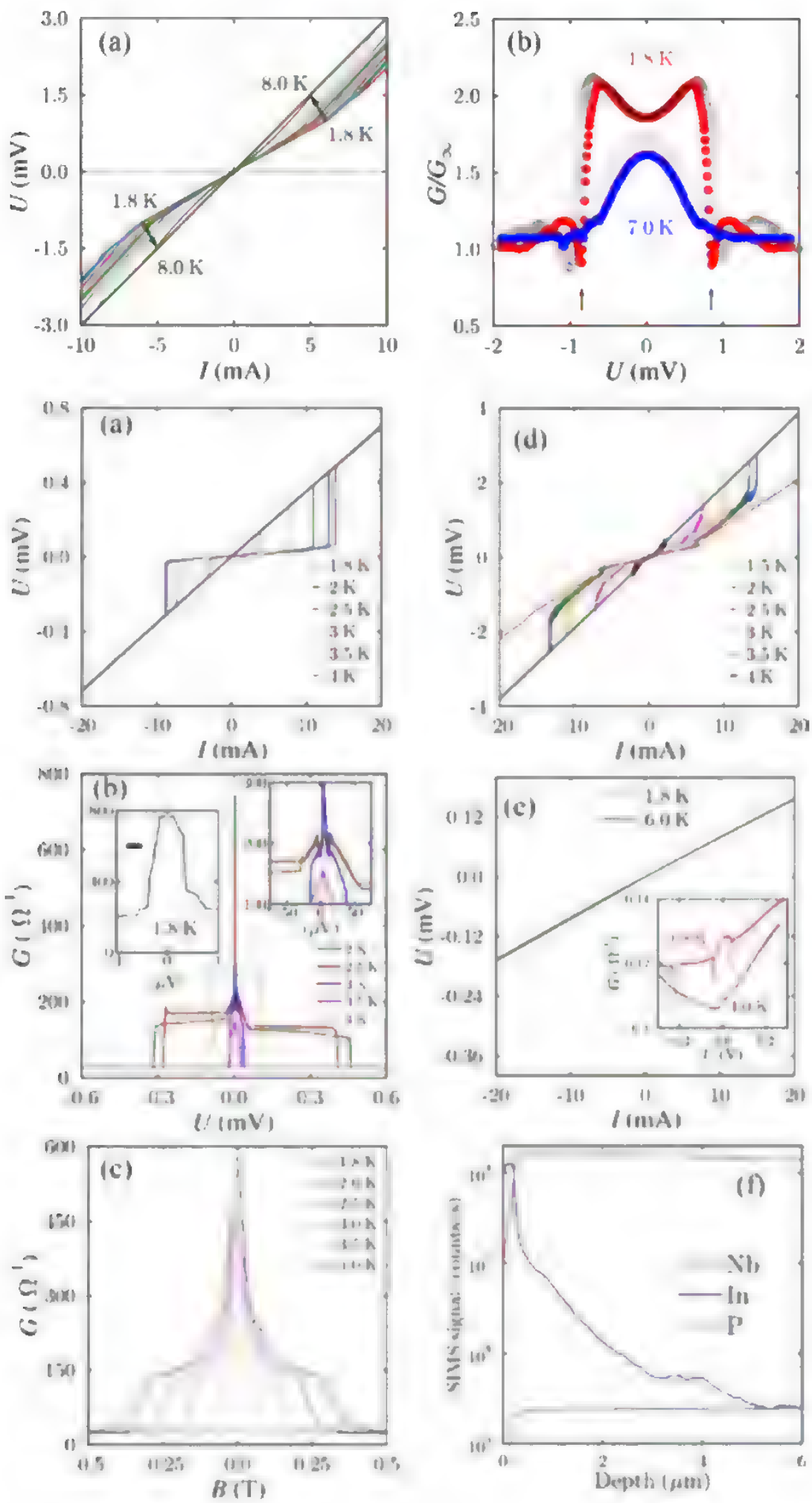


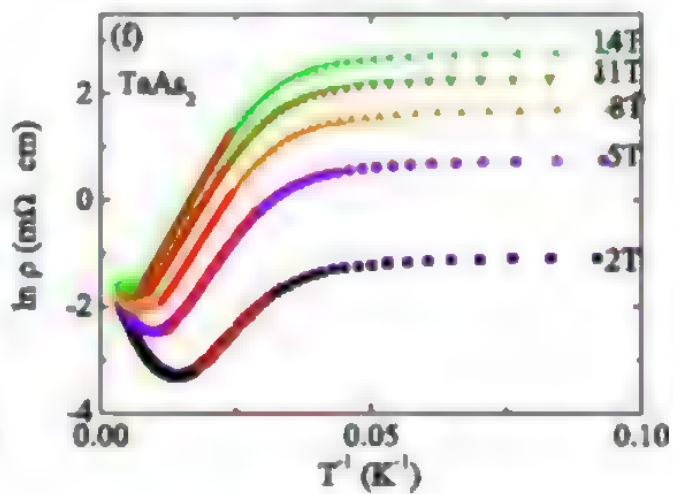
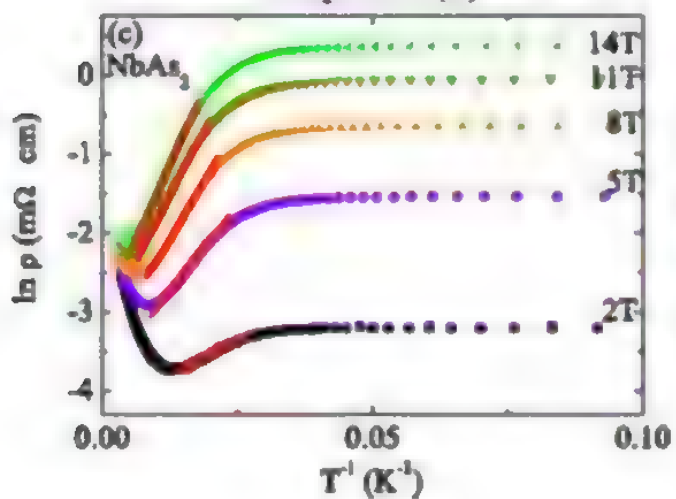
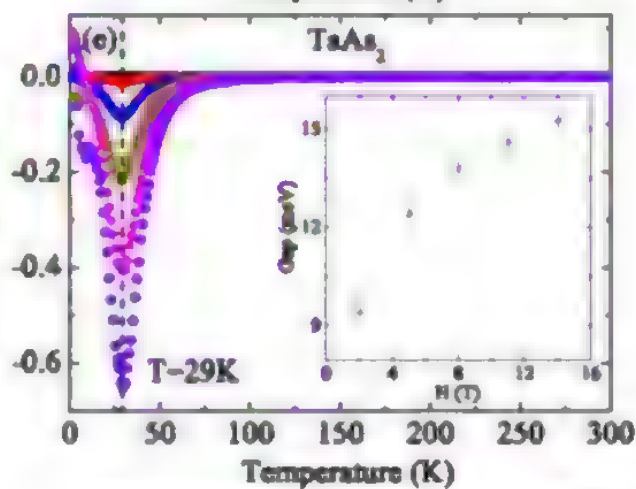
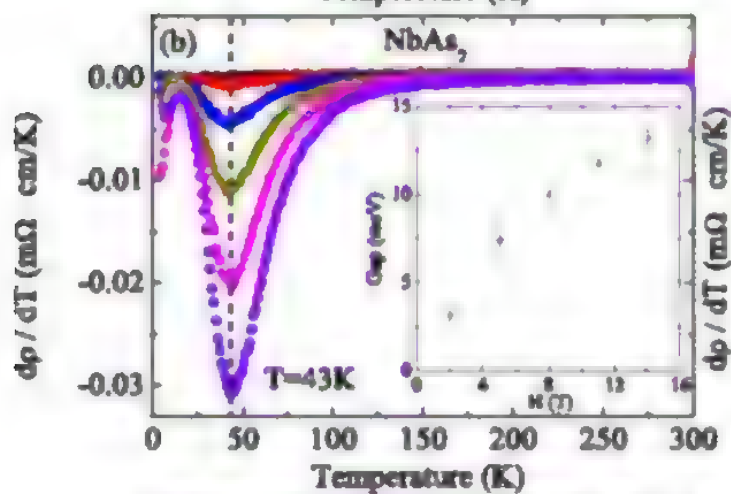
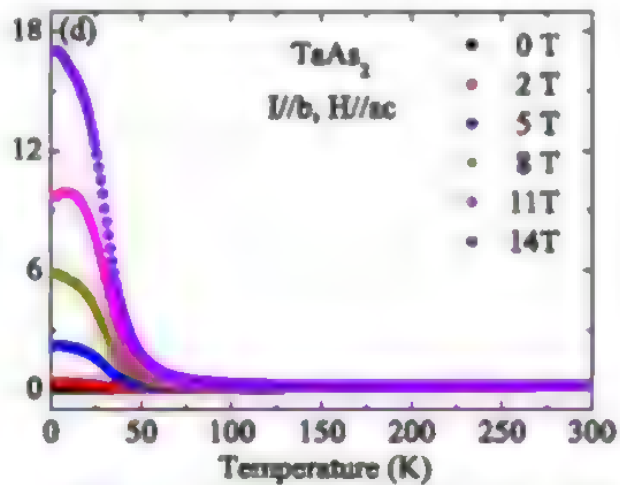
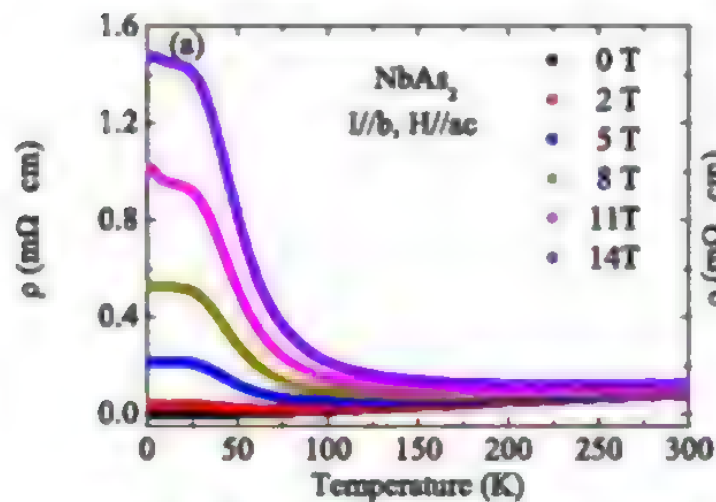
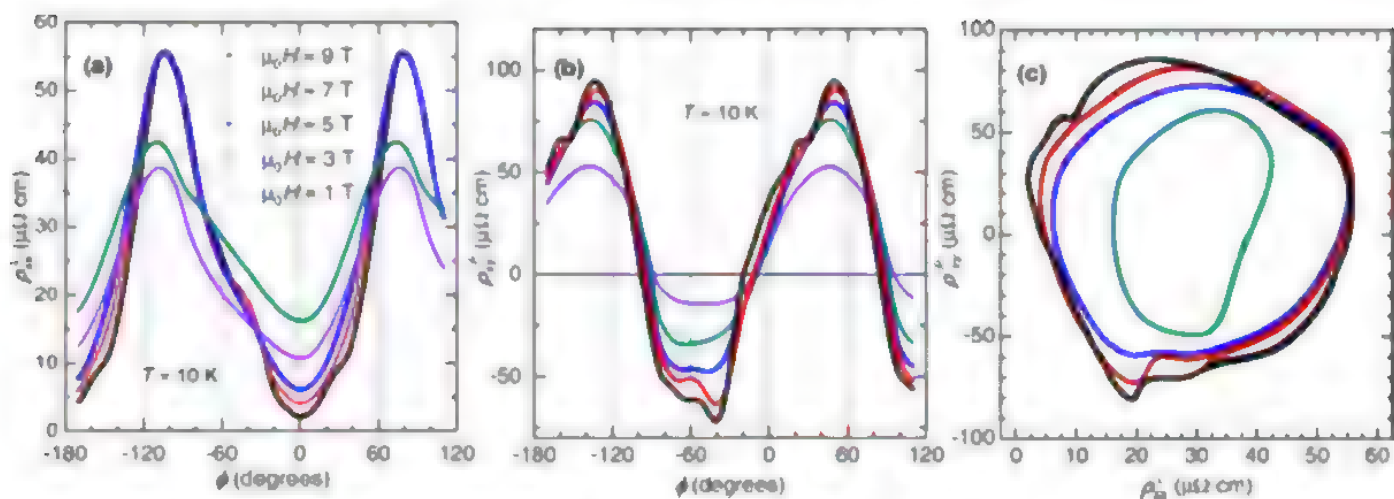




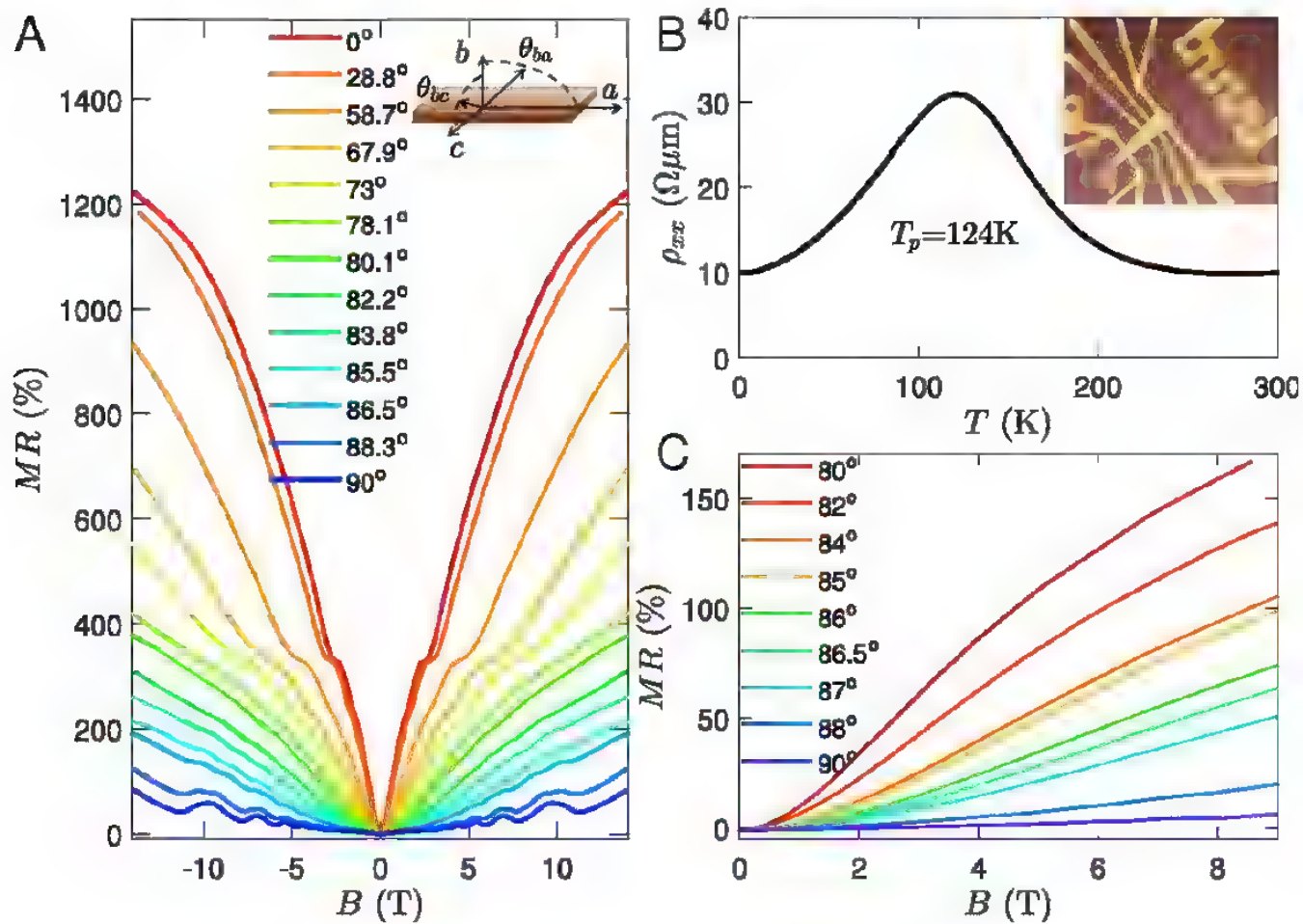
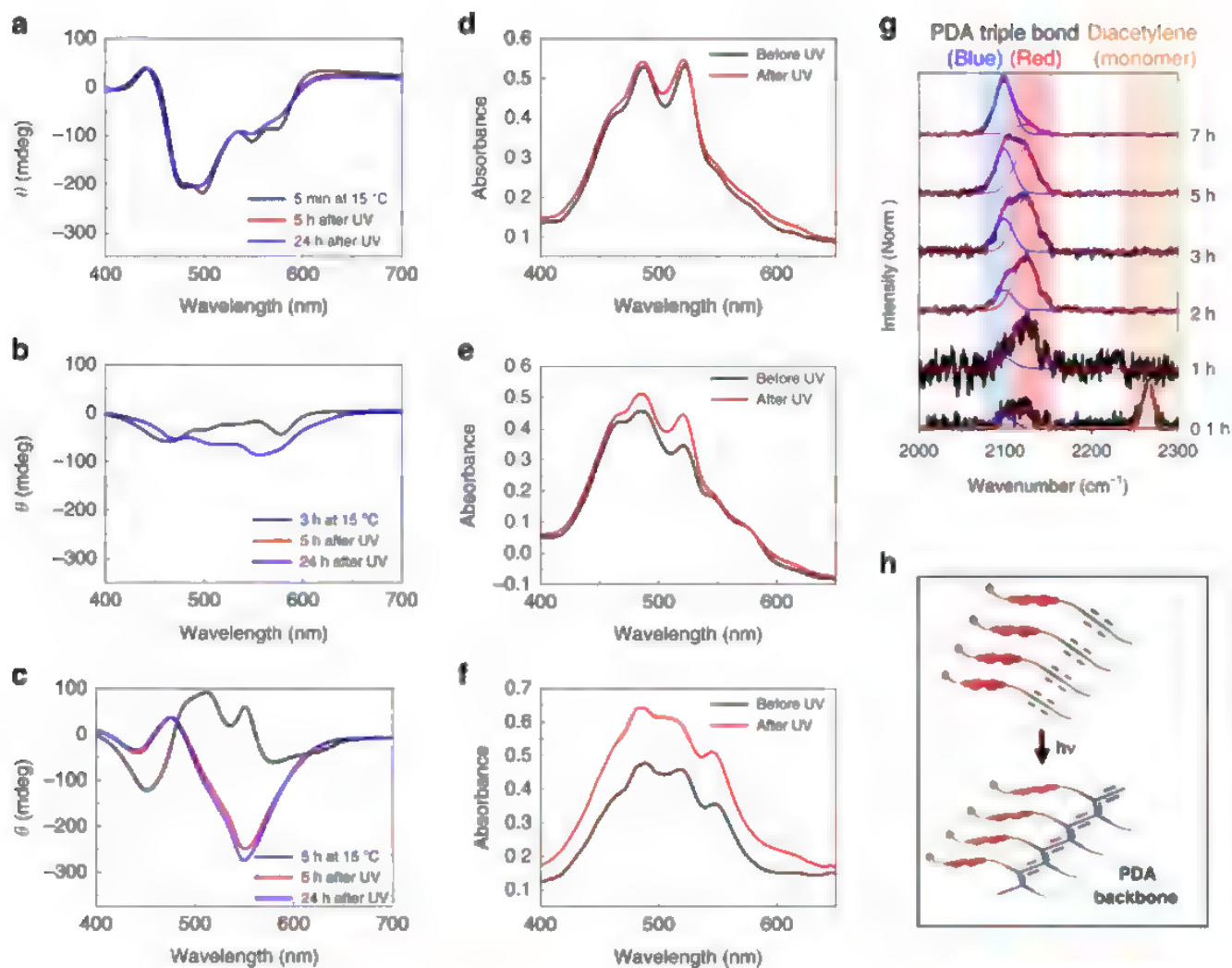
(b)

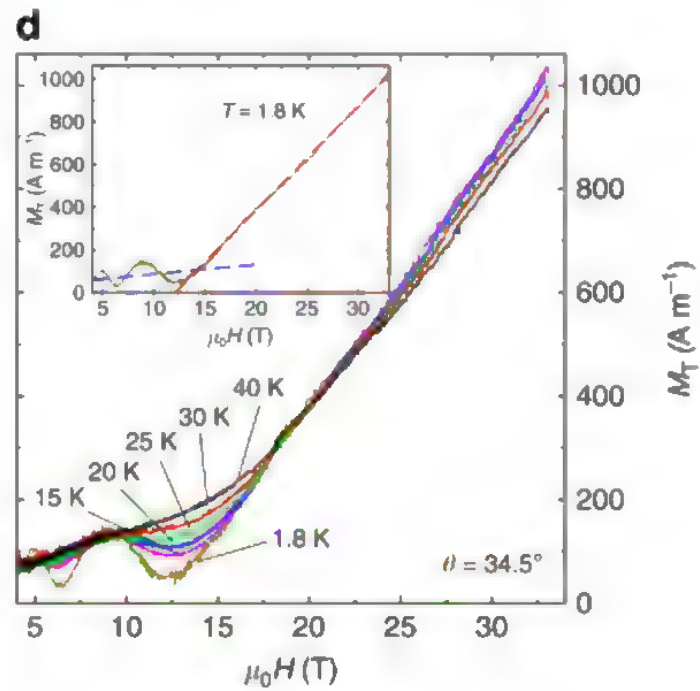
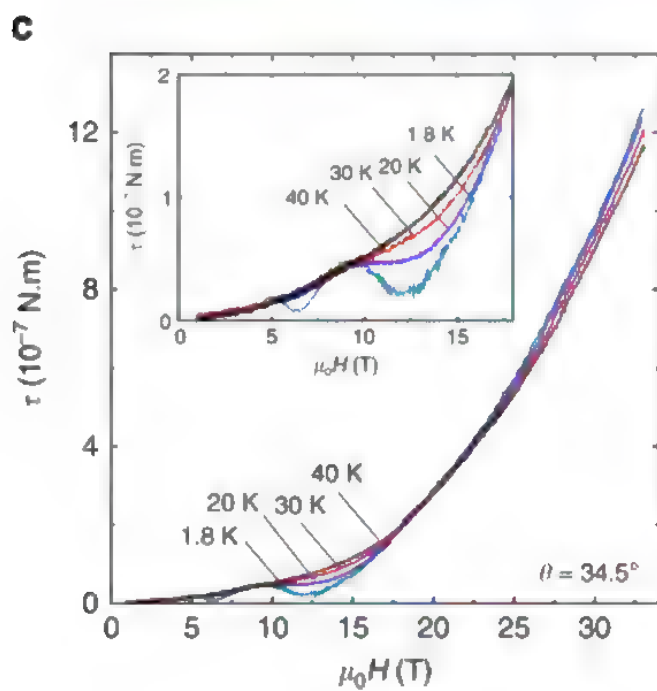
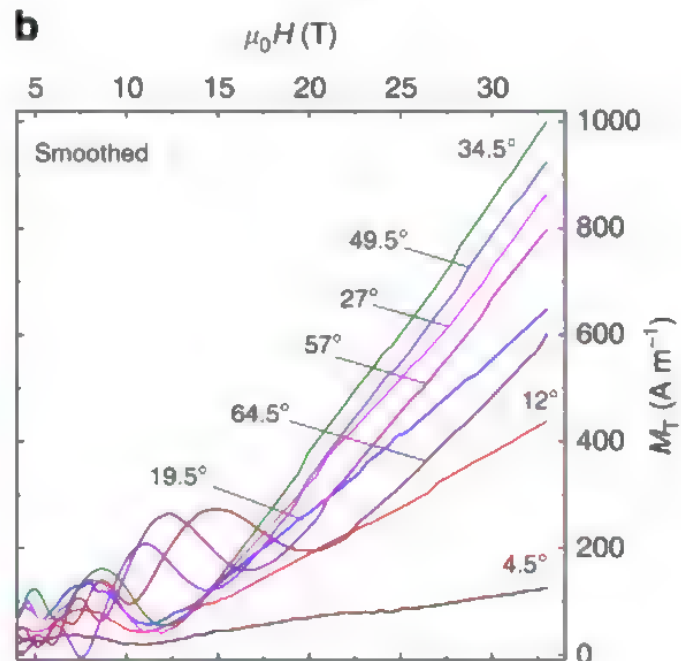
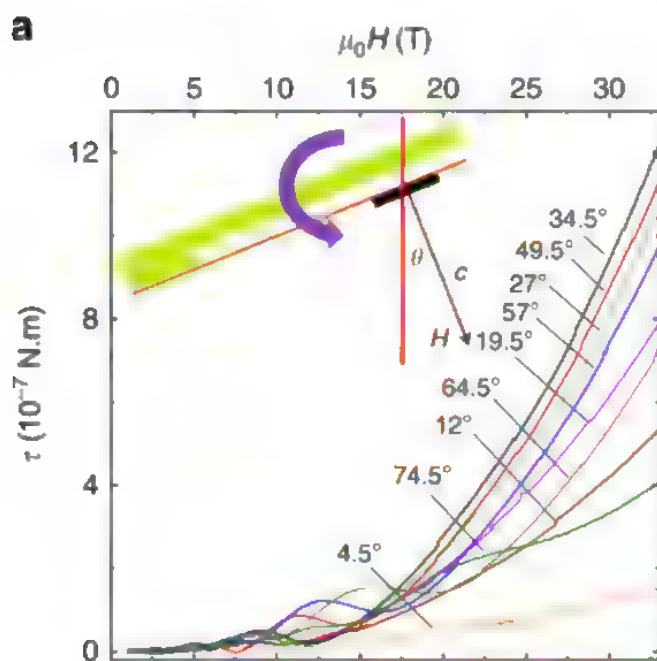
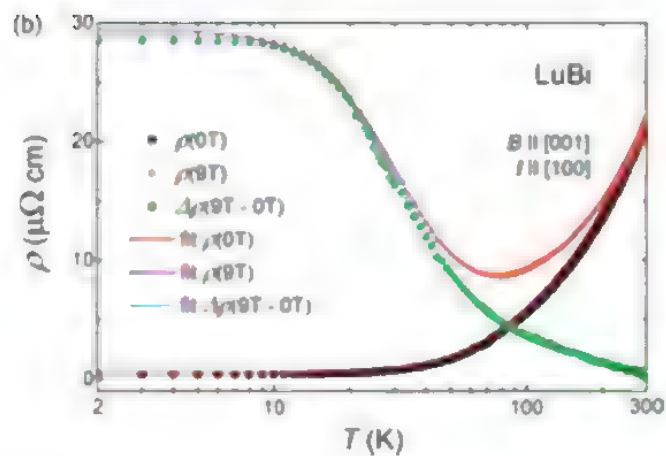
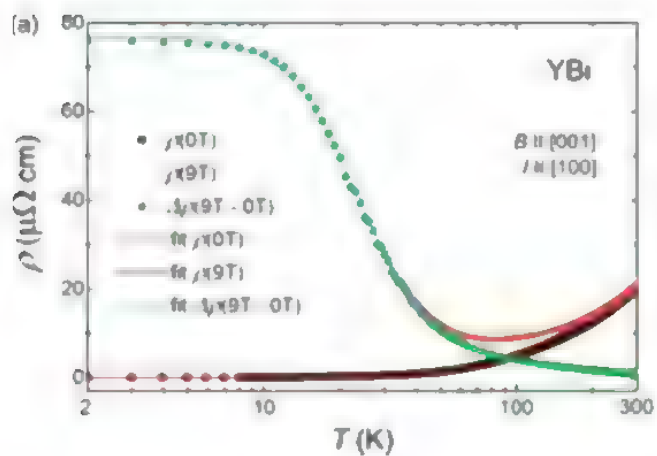


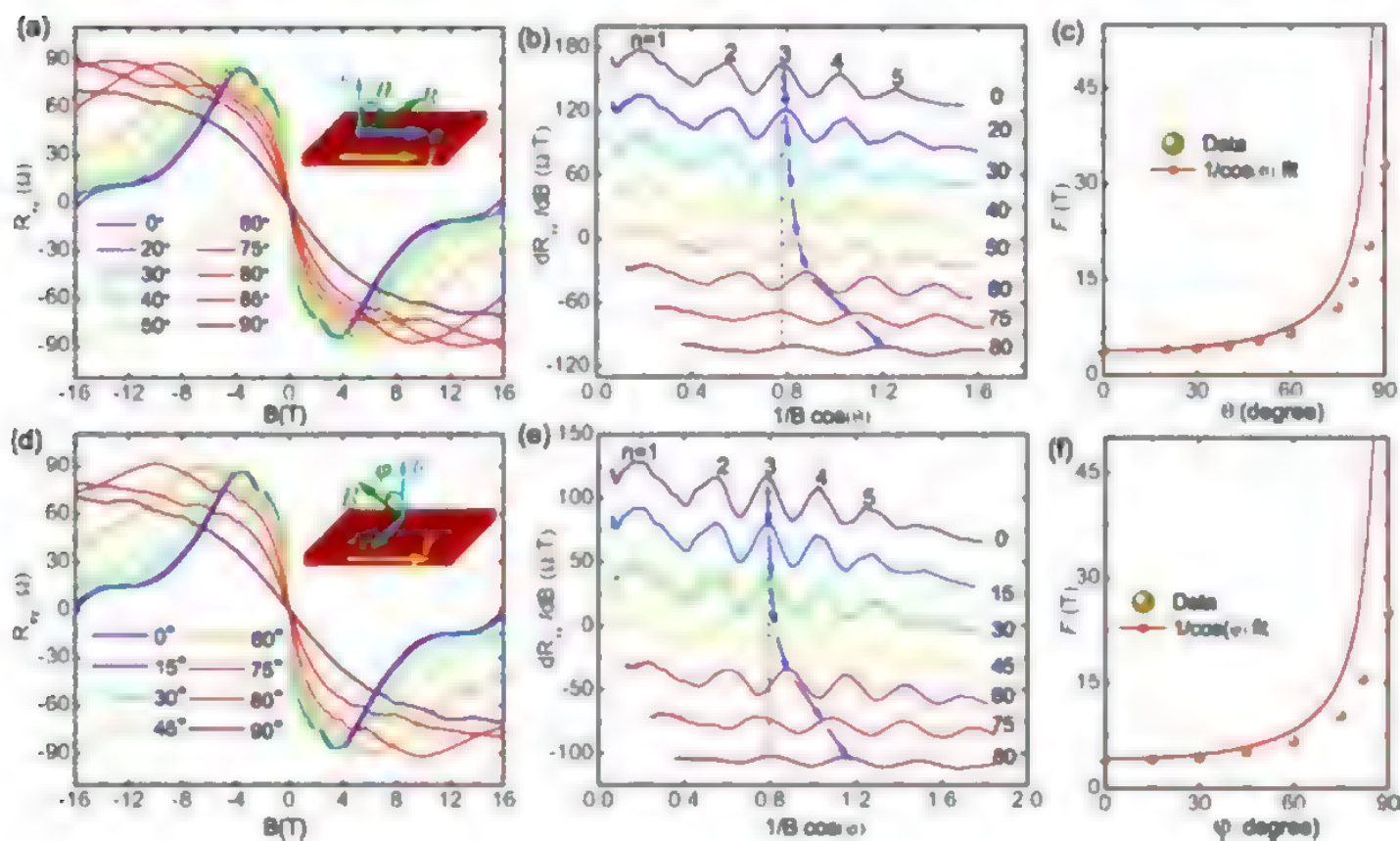
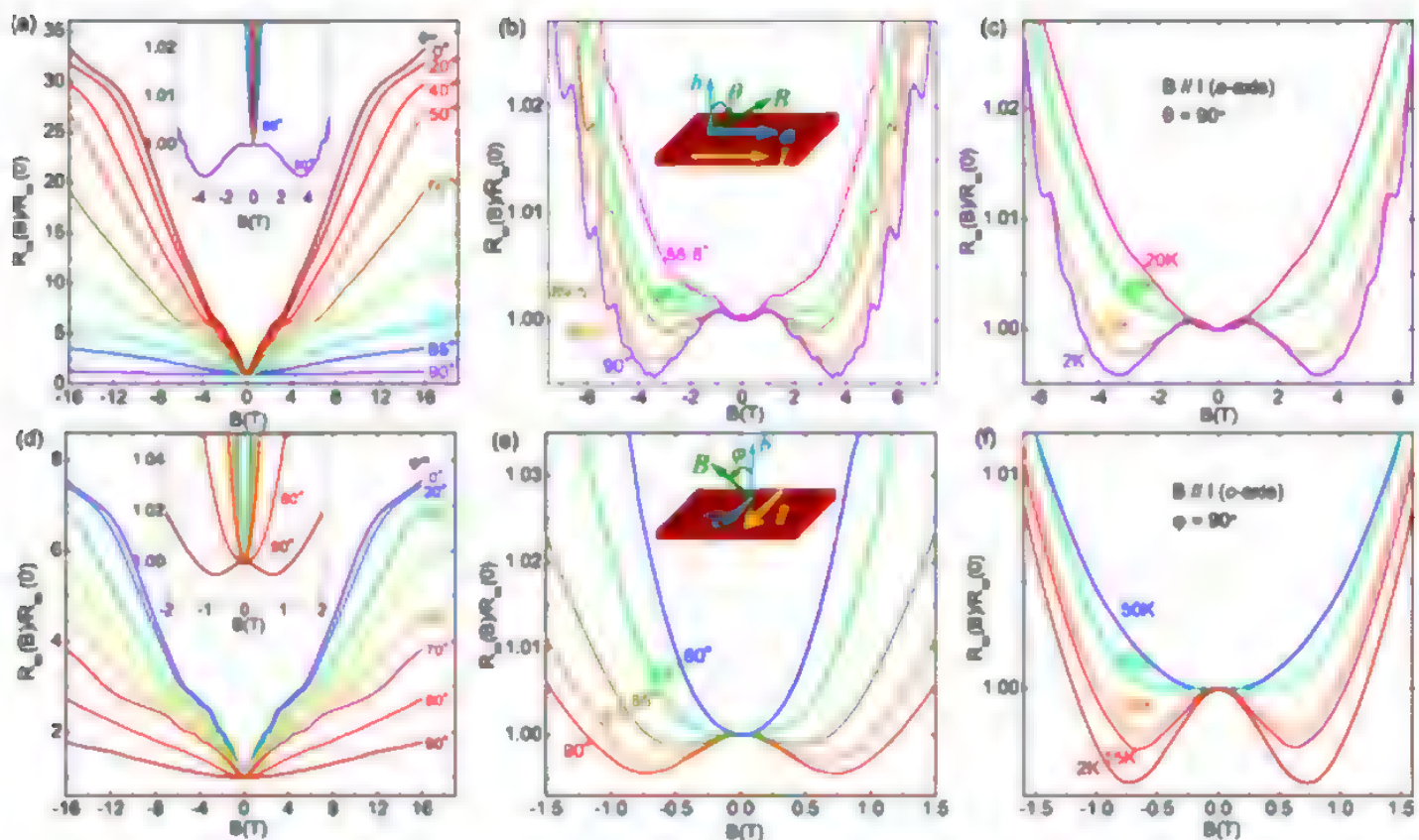


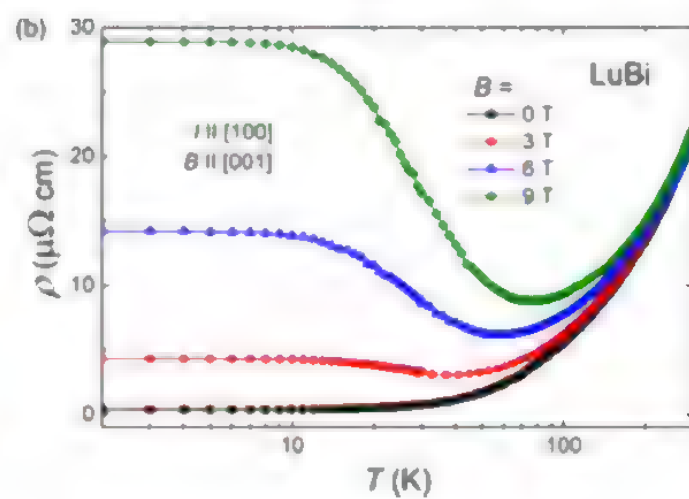
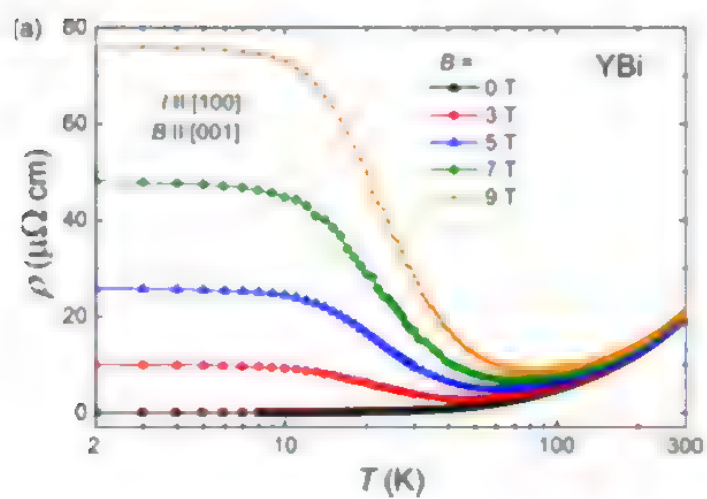
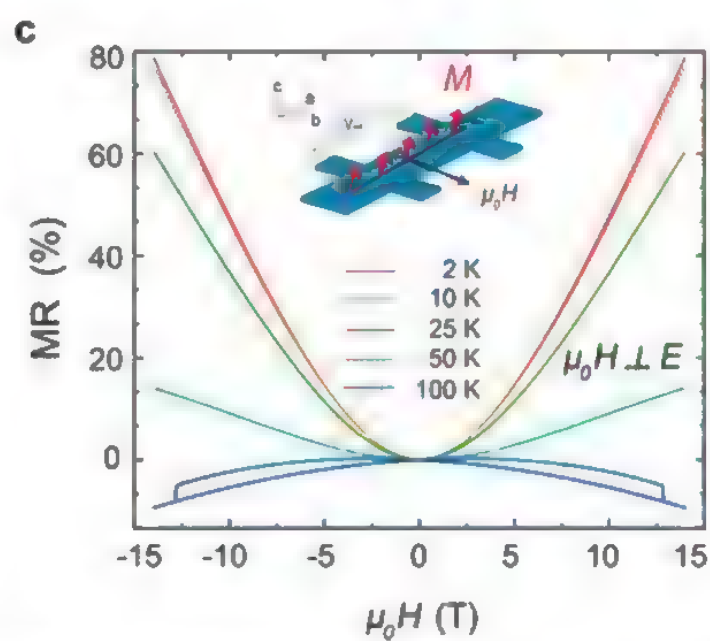
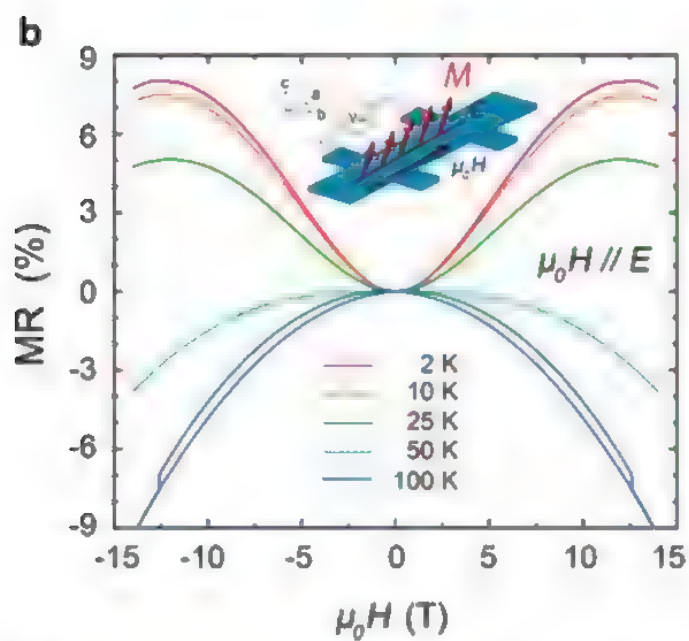
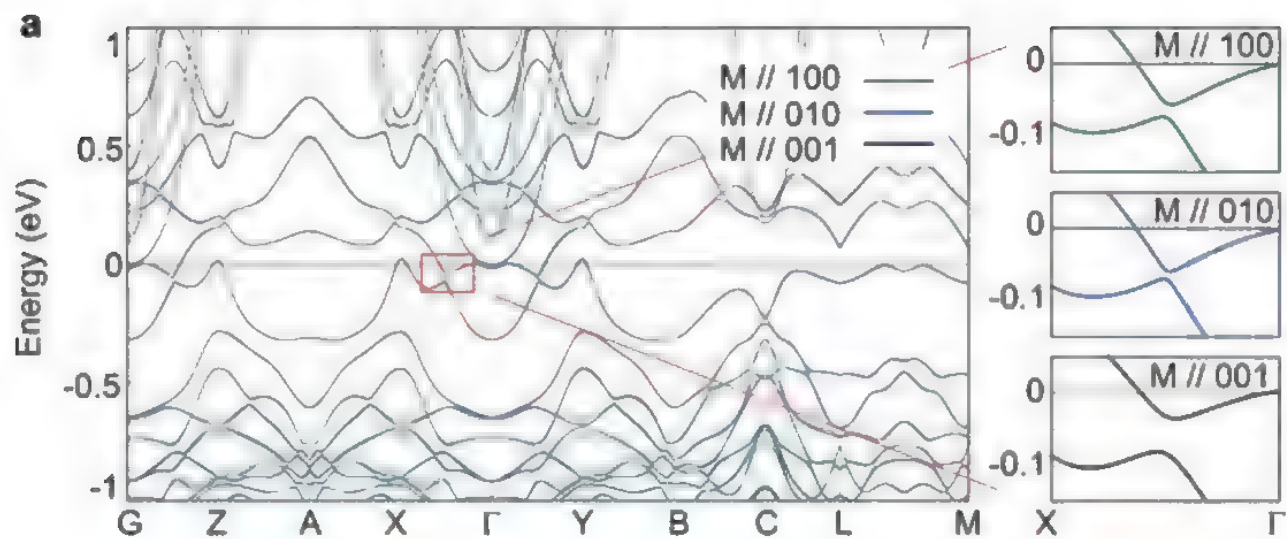




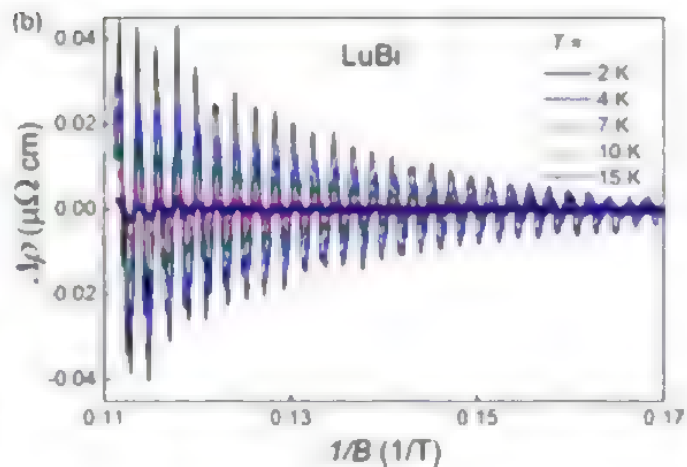
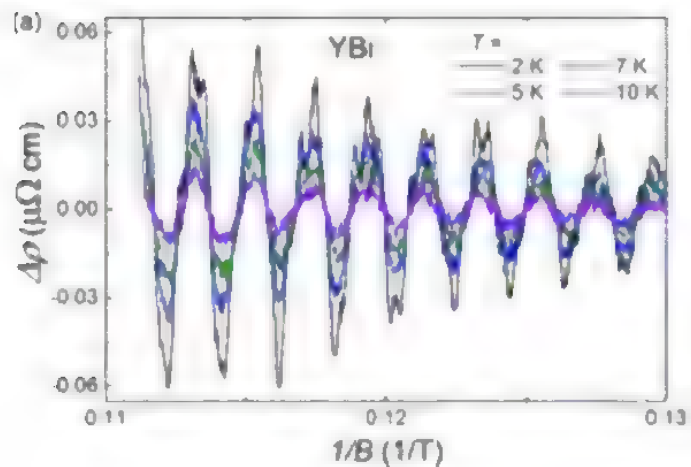
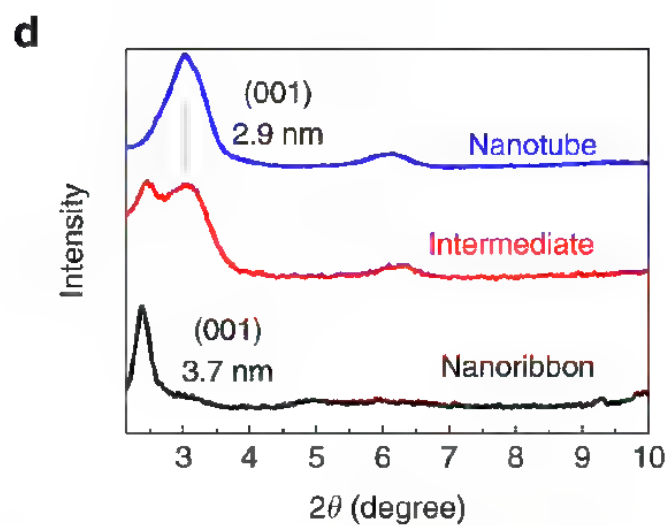
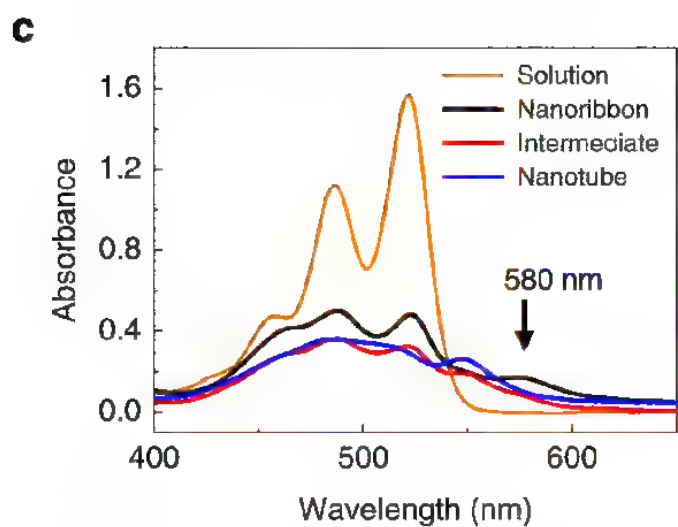
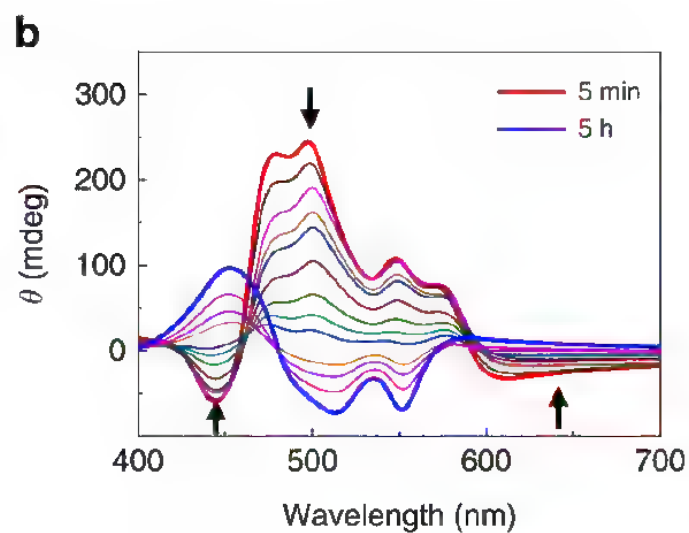
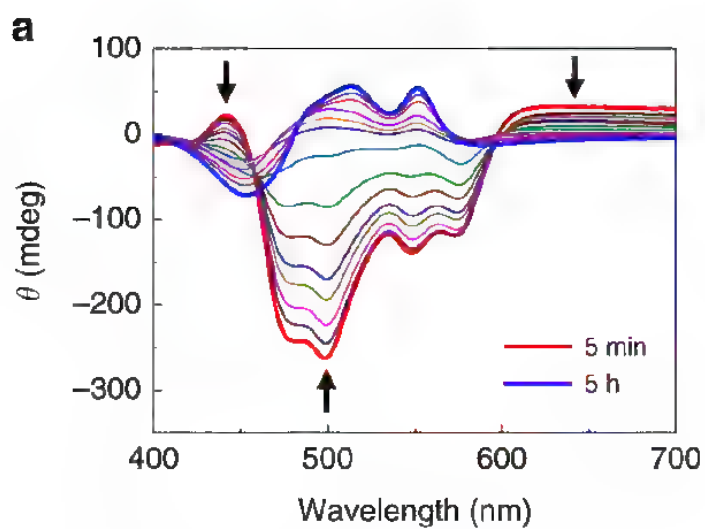


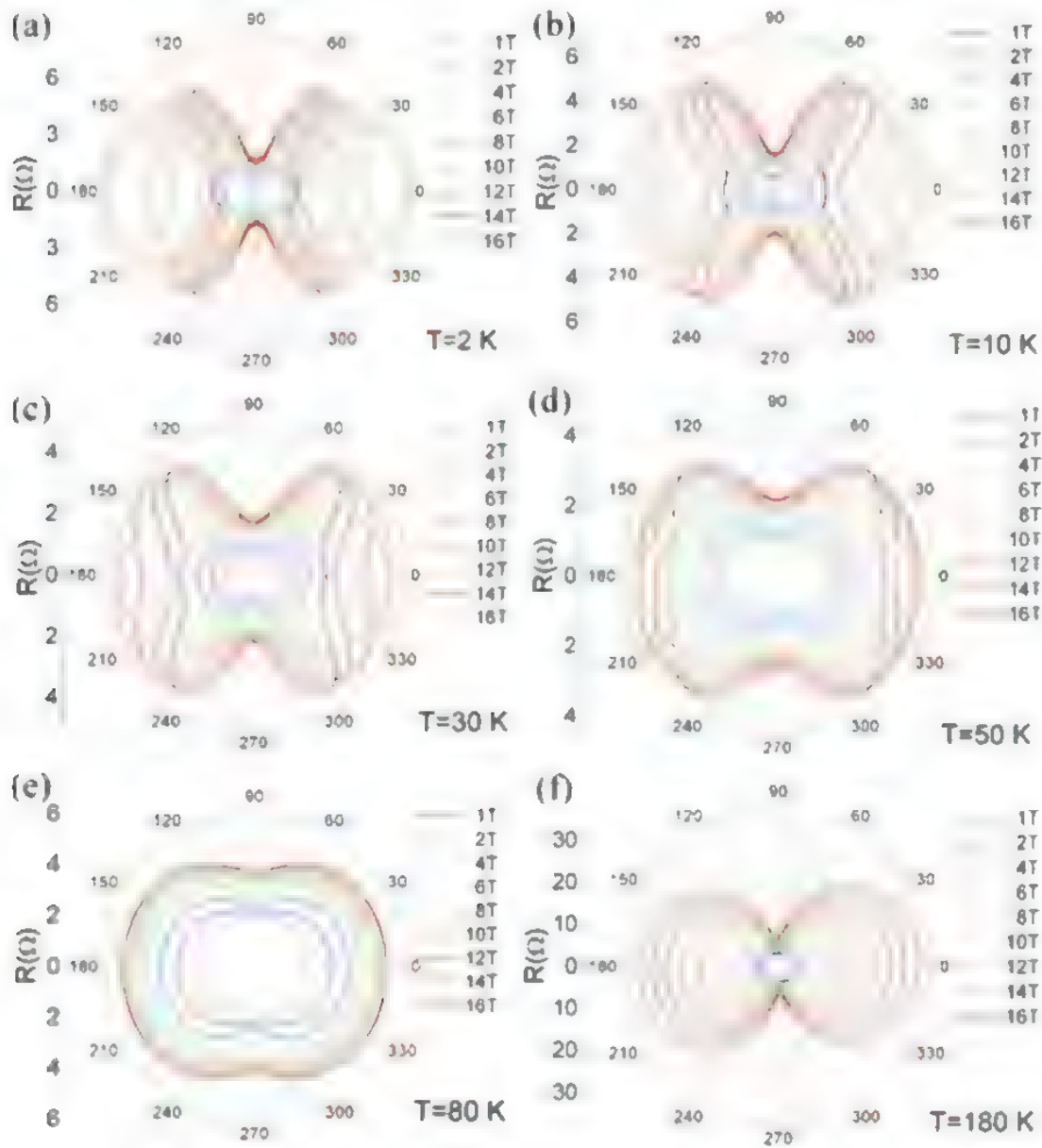
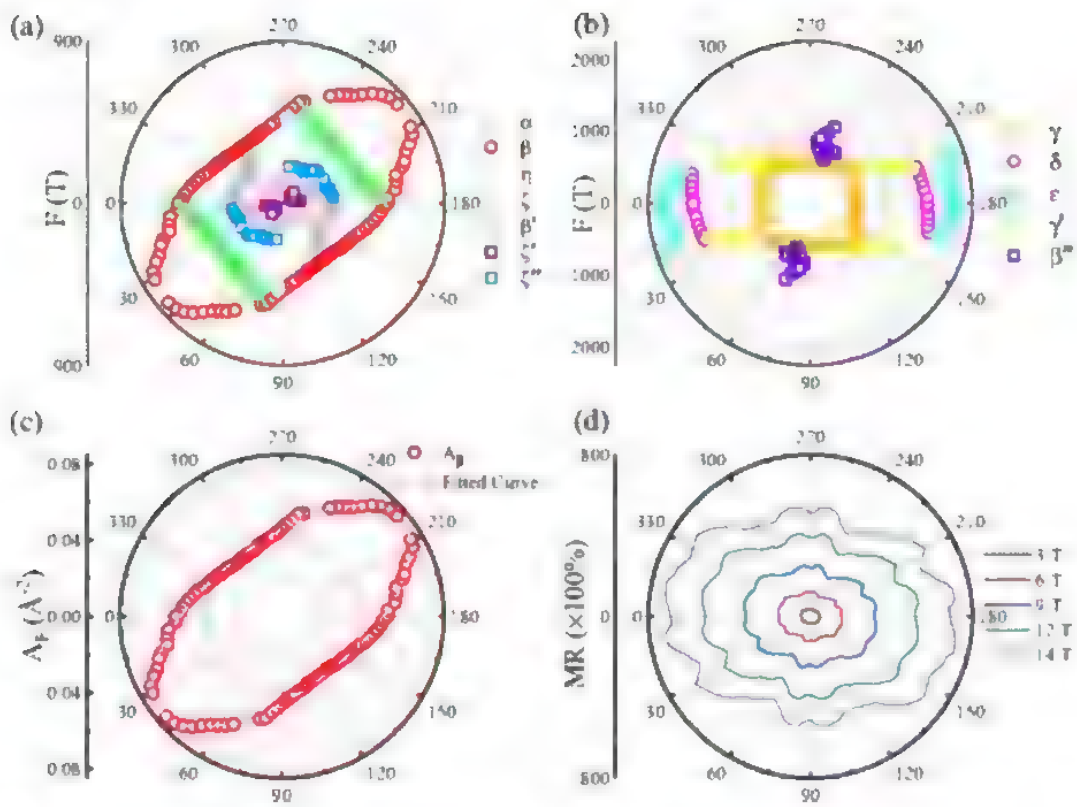


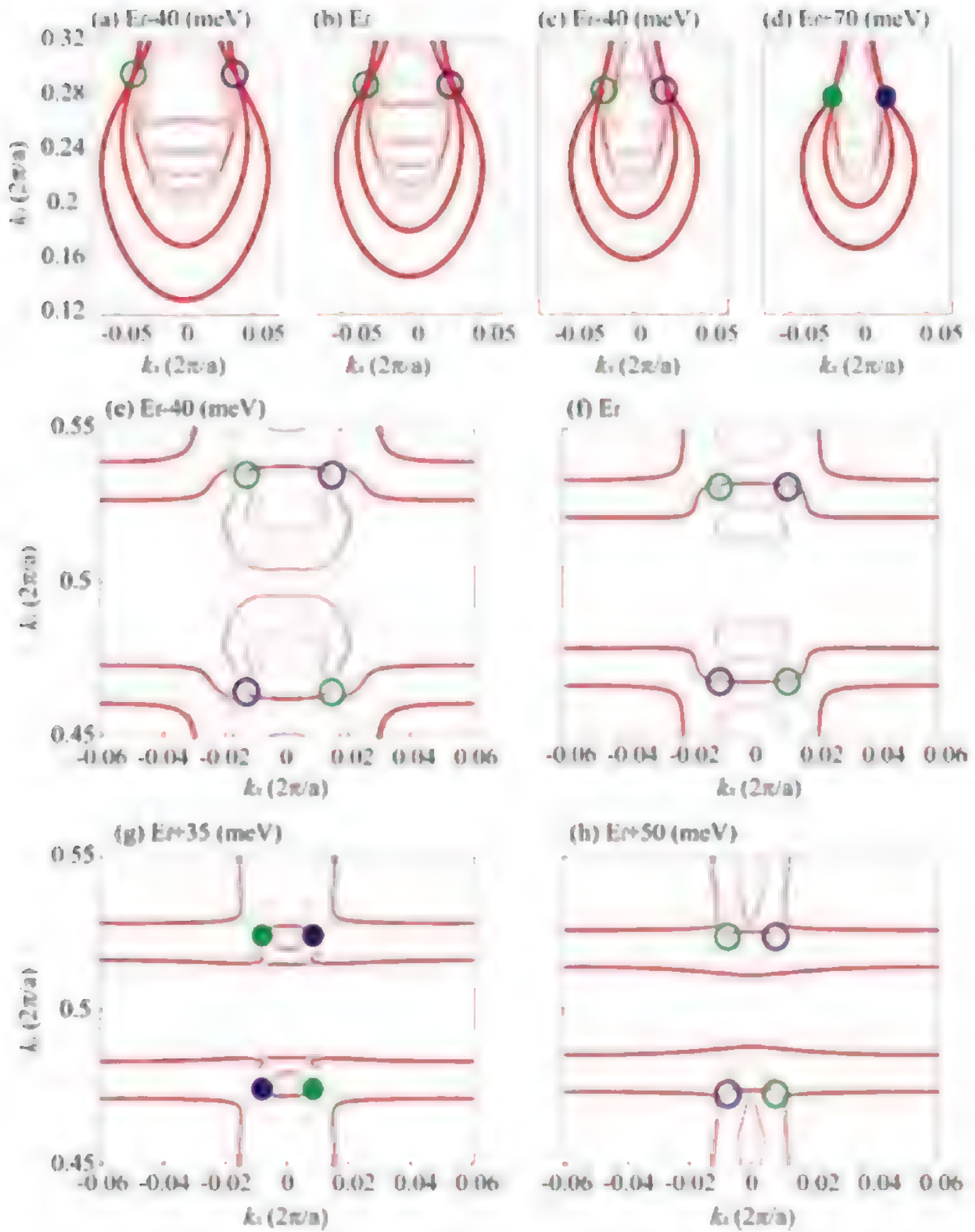


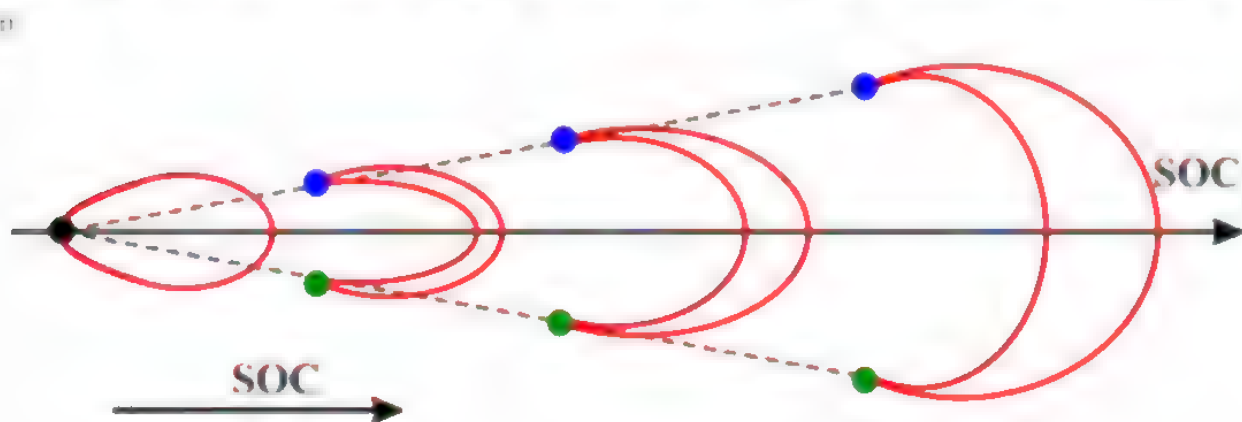
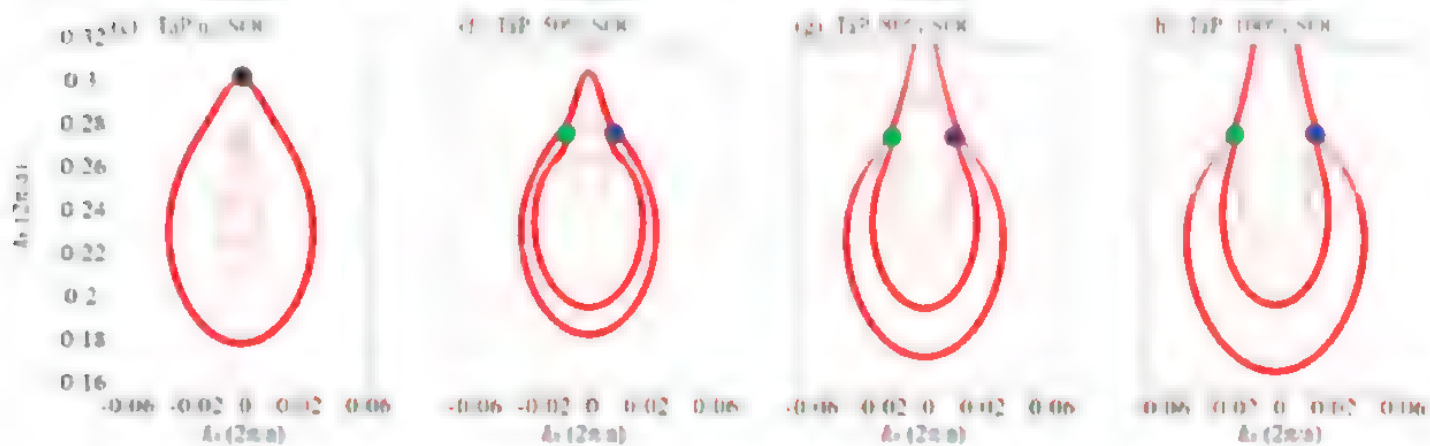
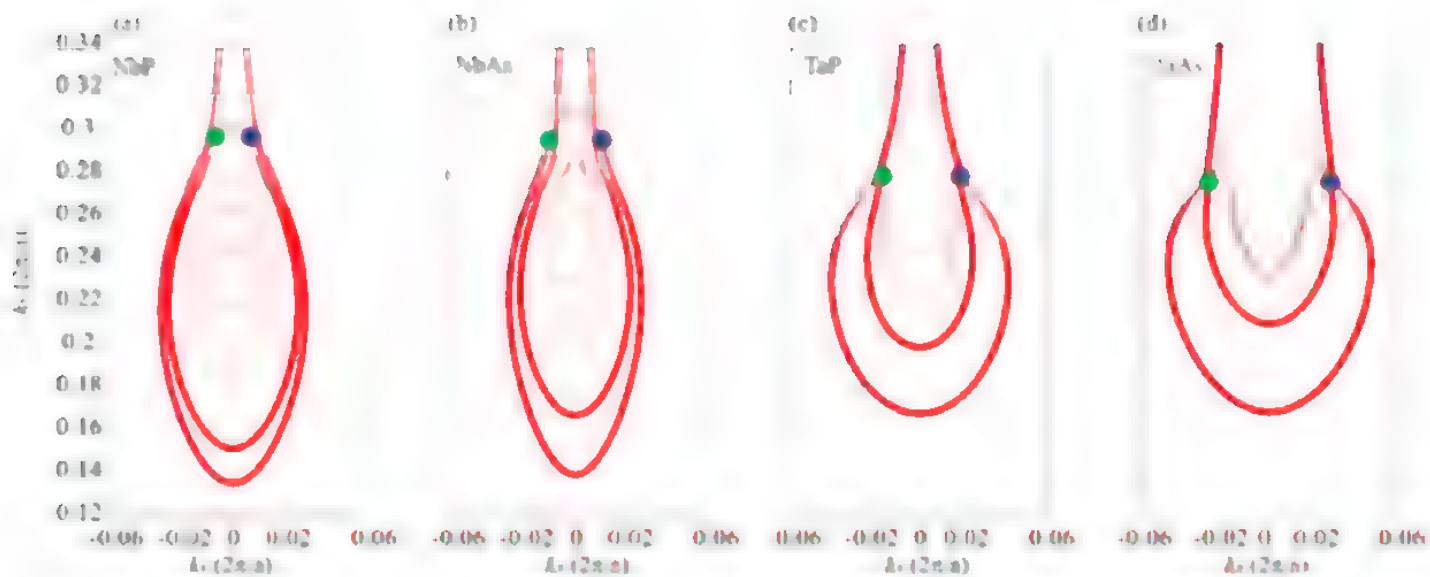




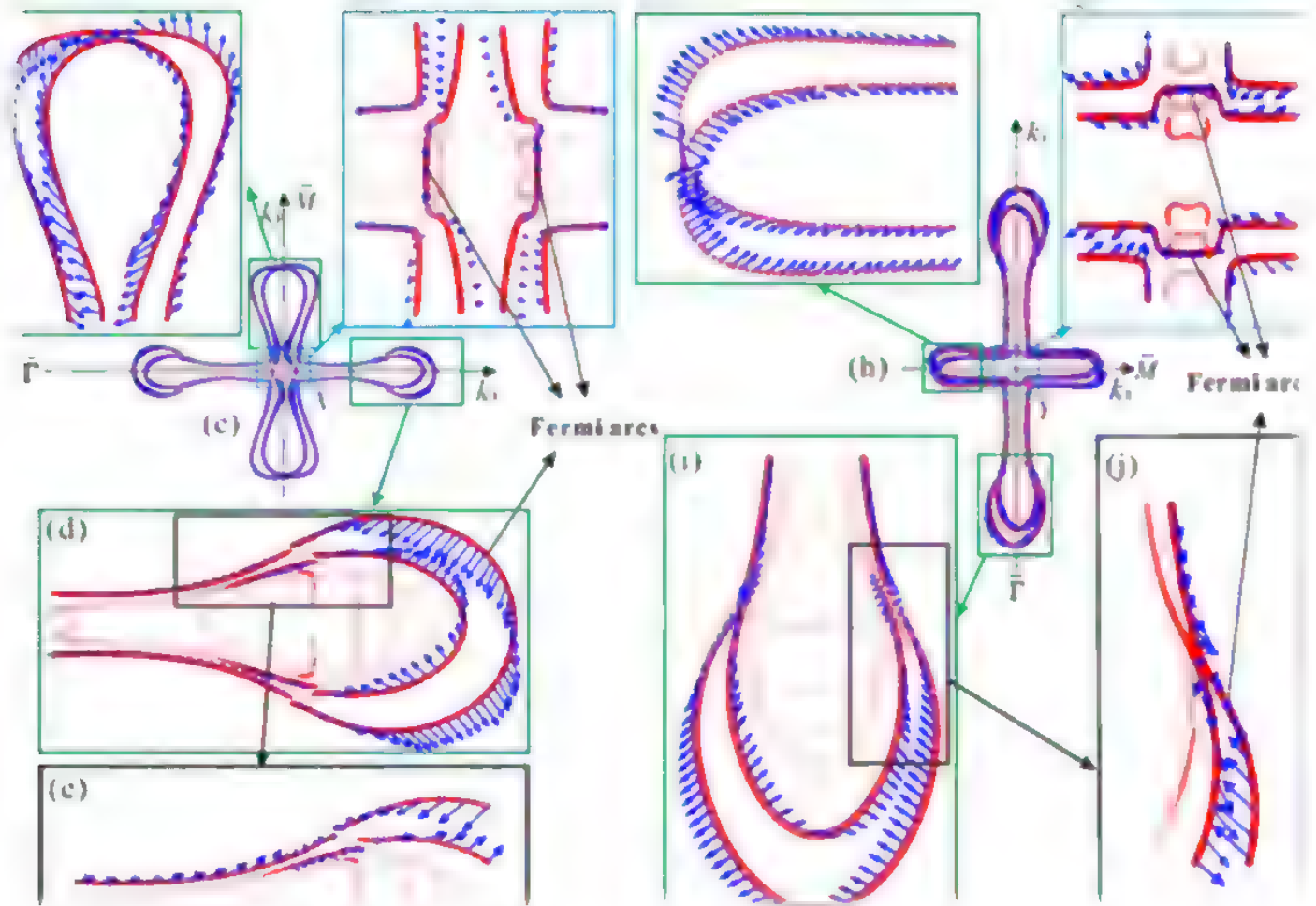


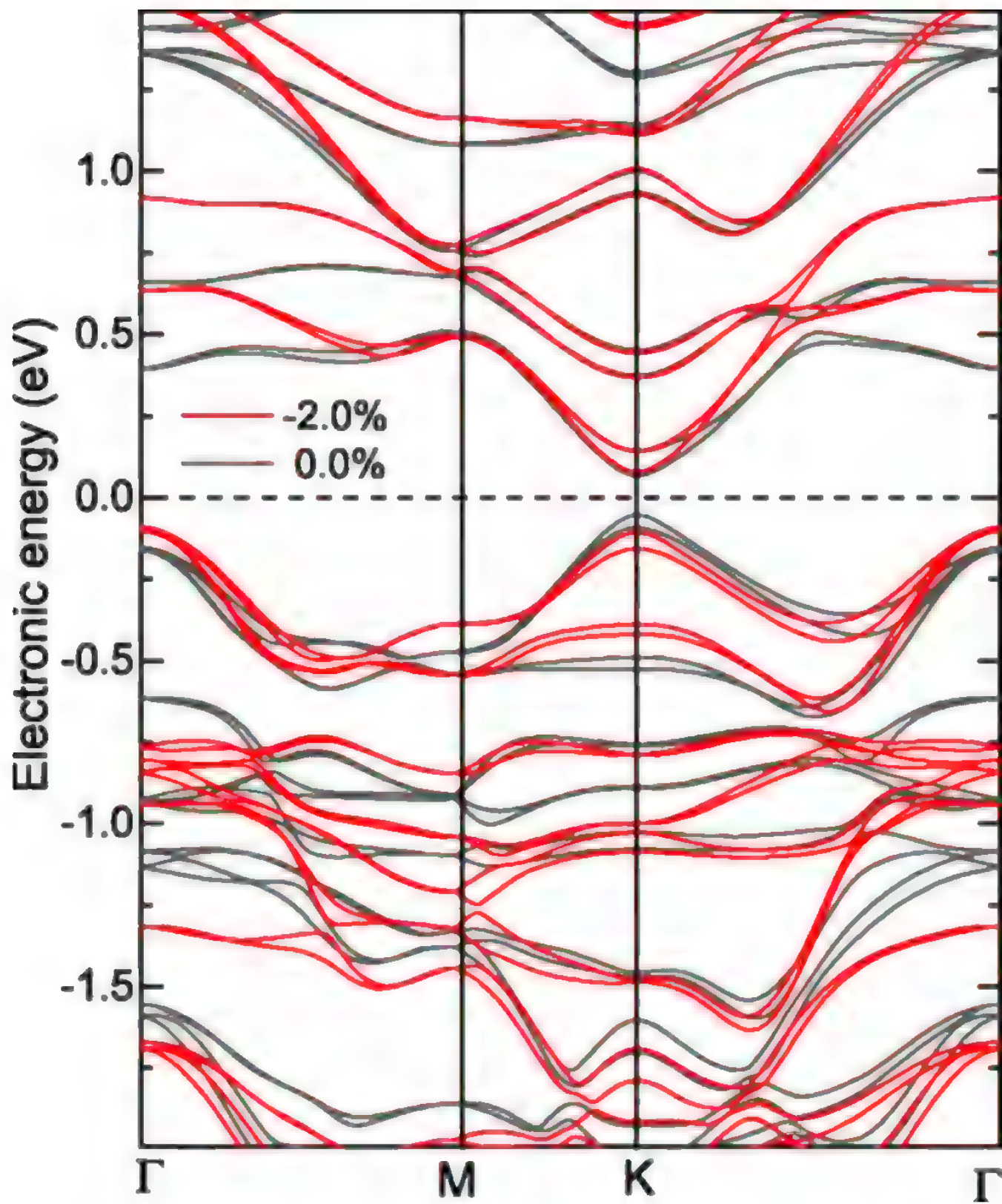


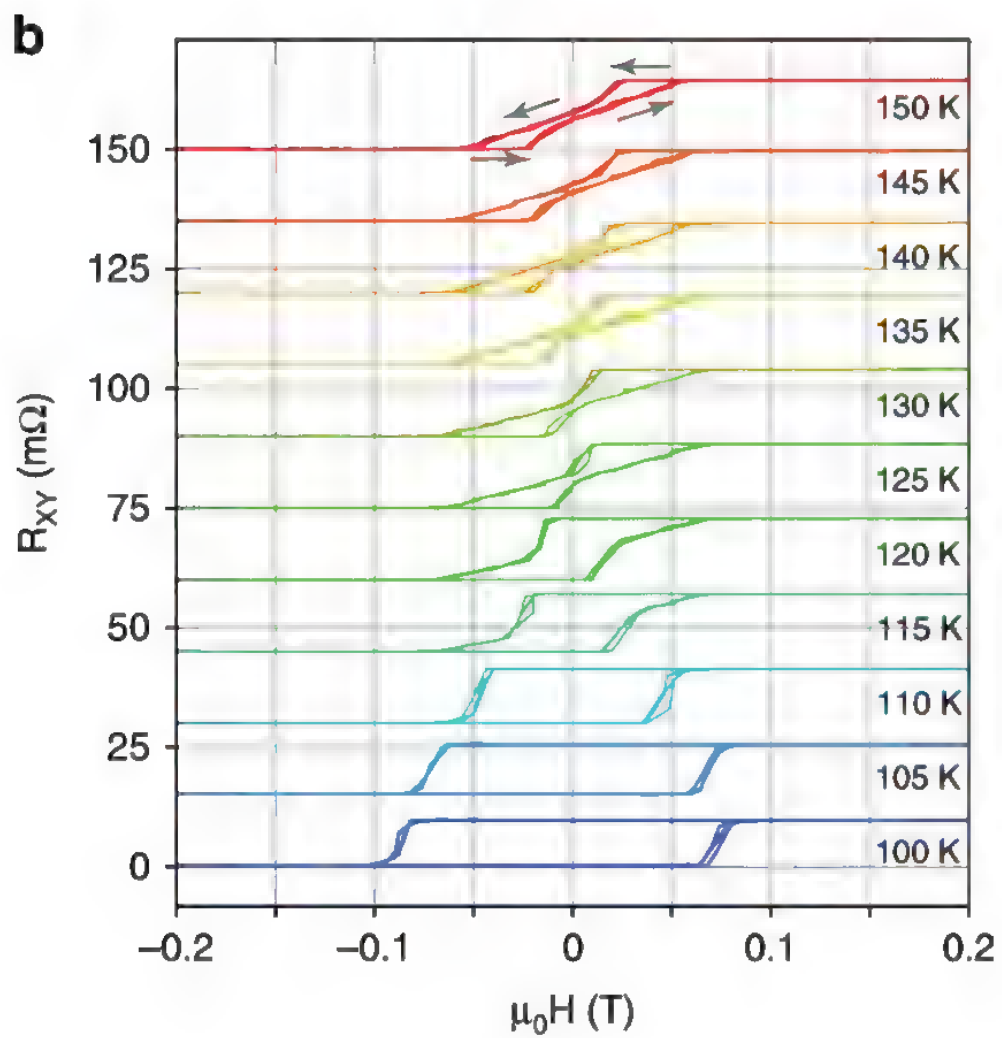
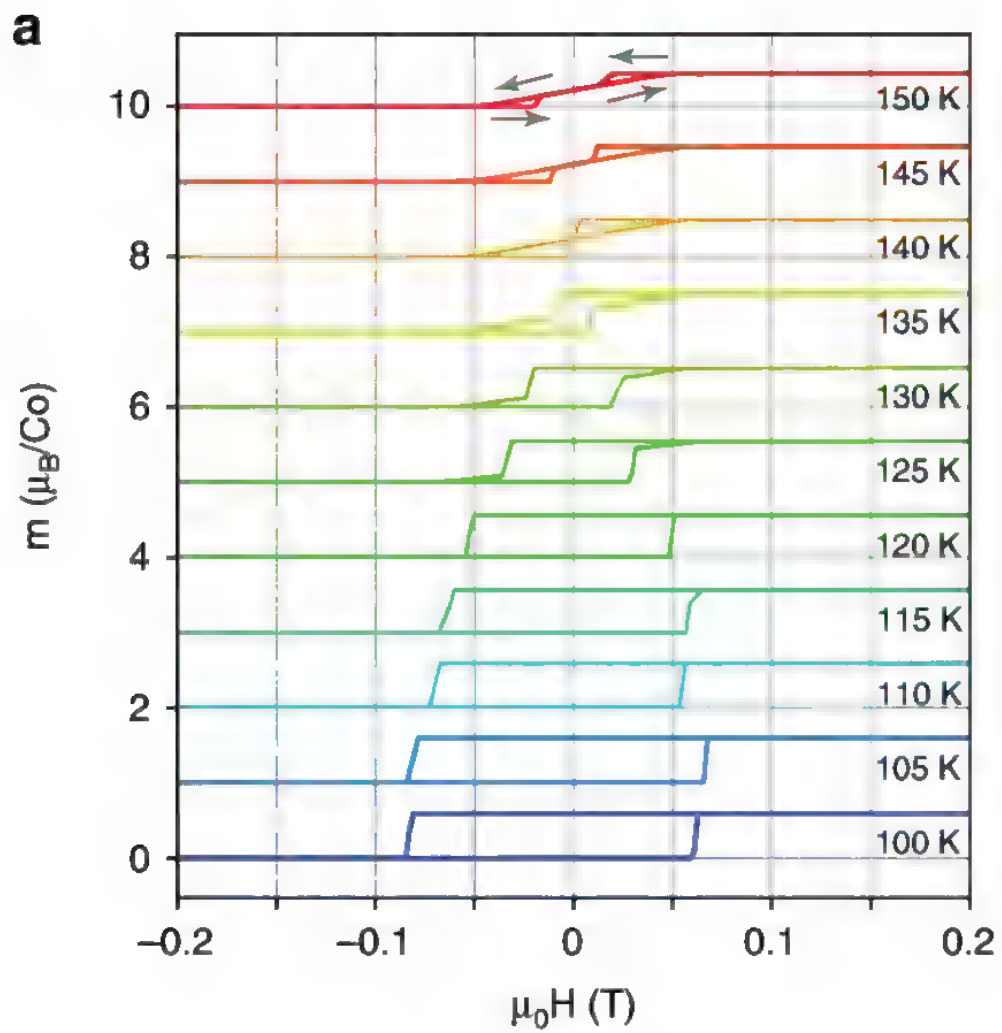


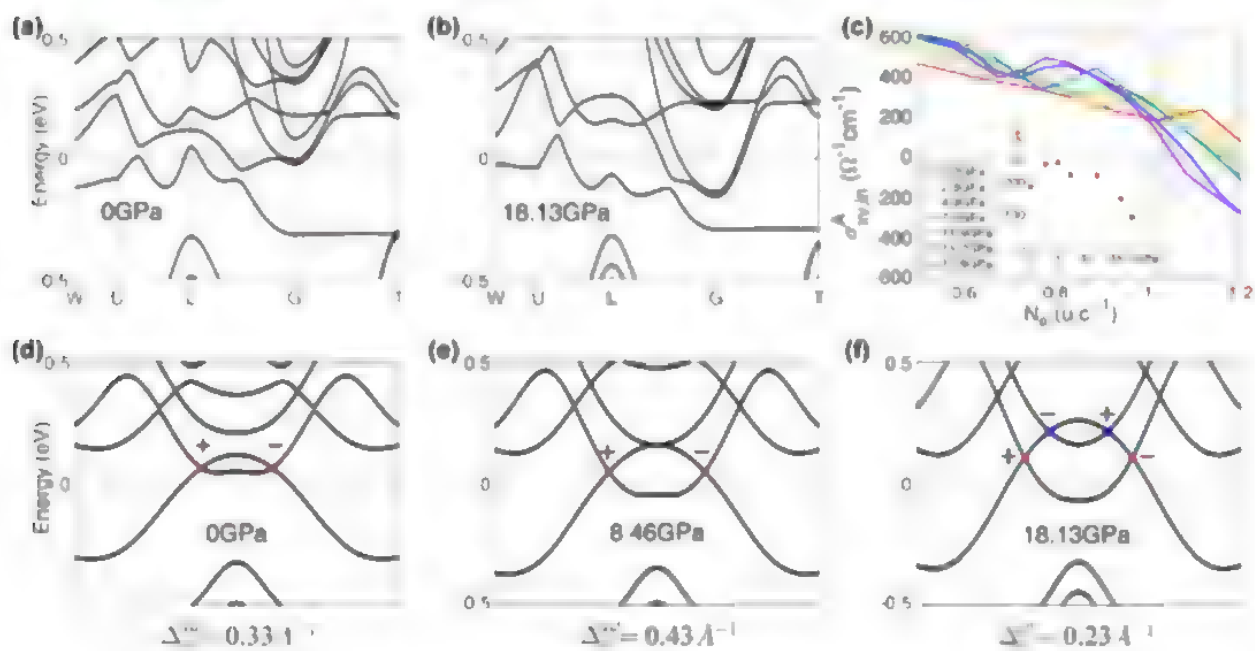
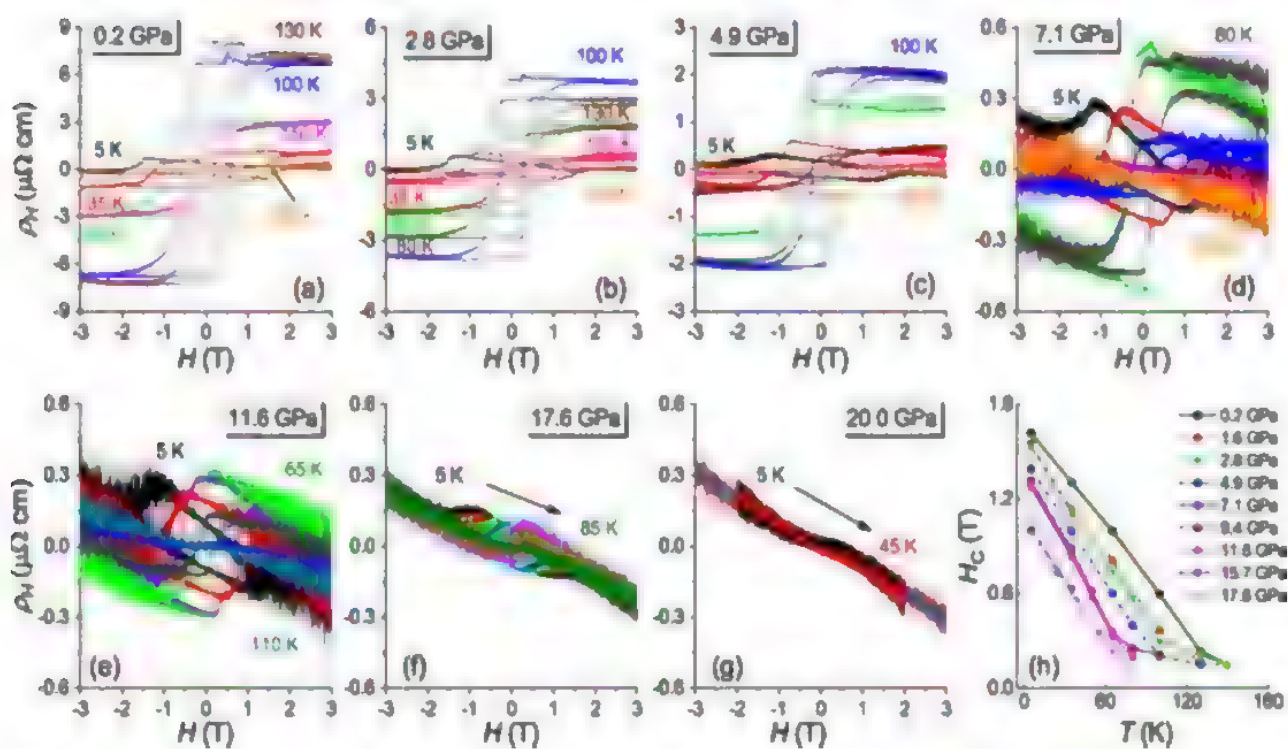
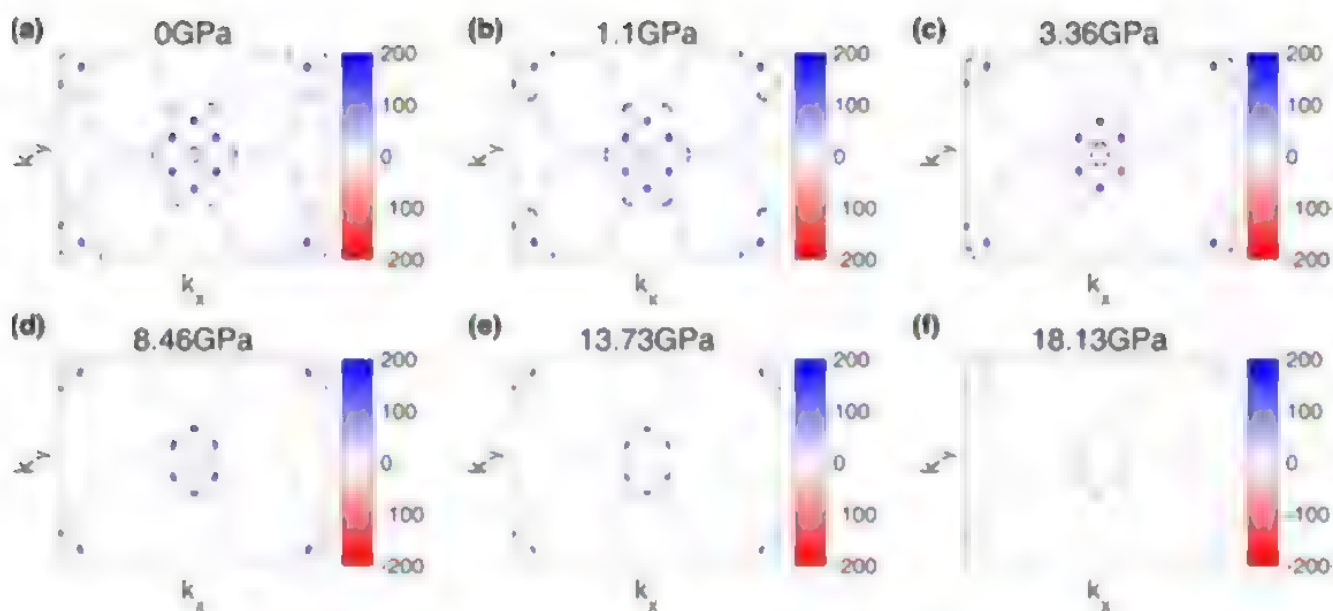




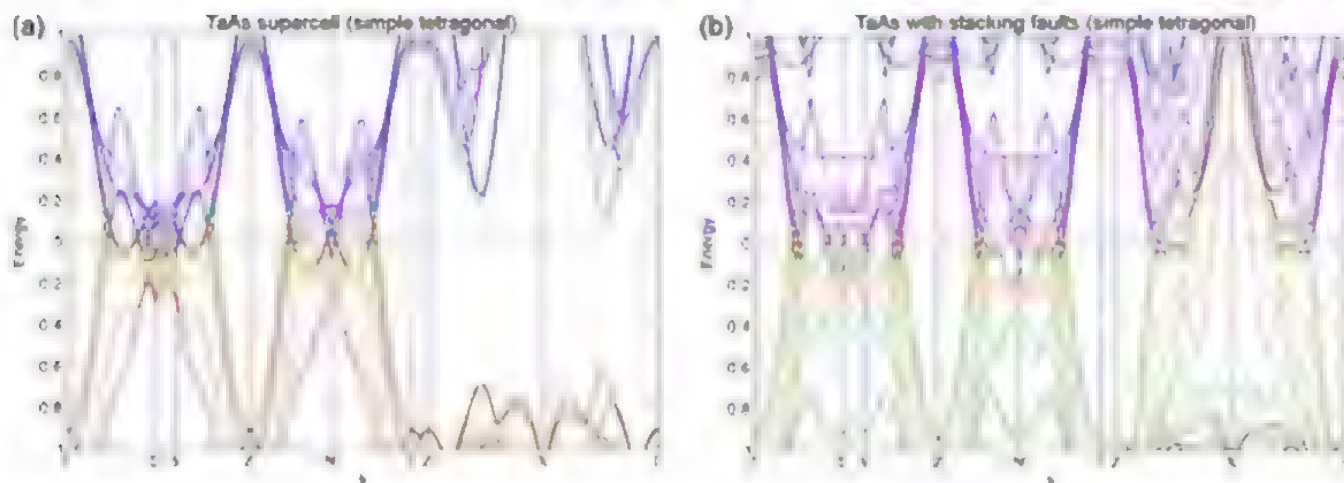
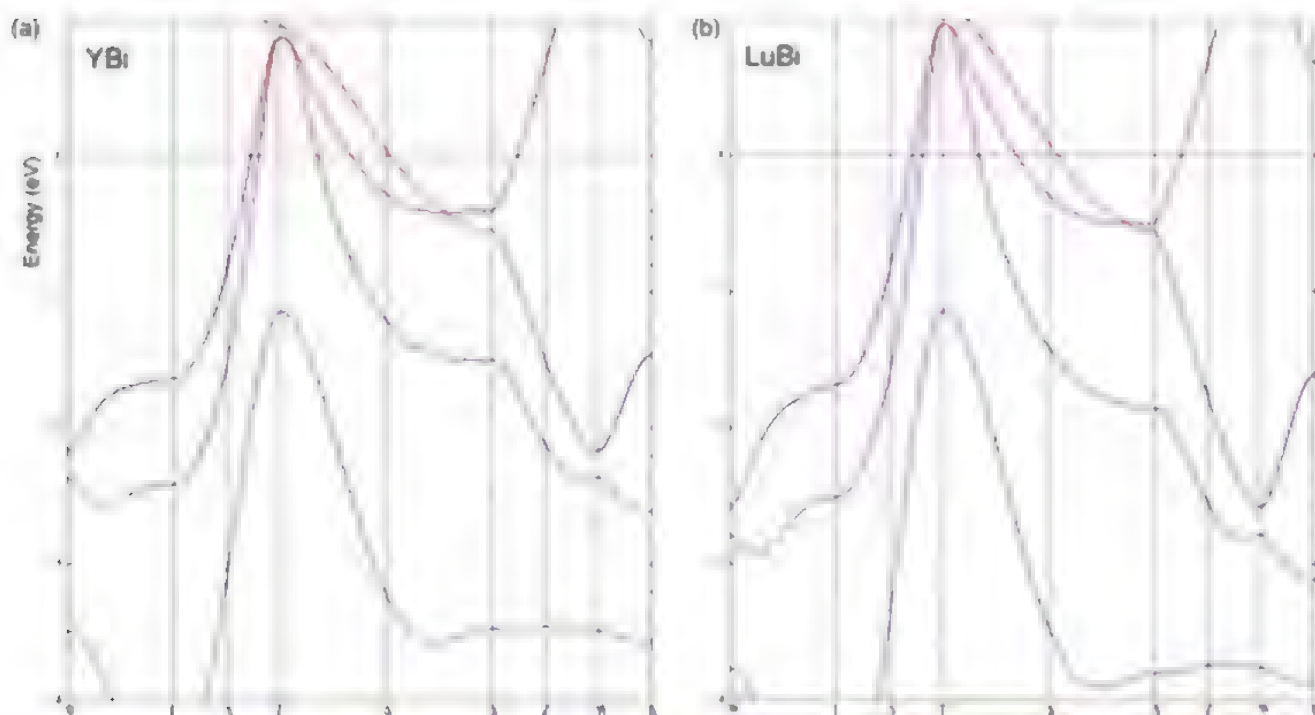
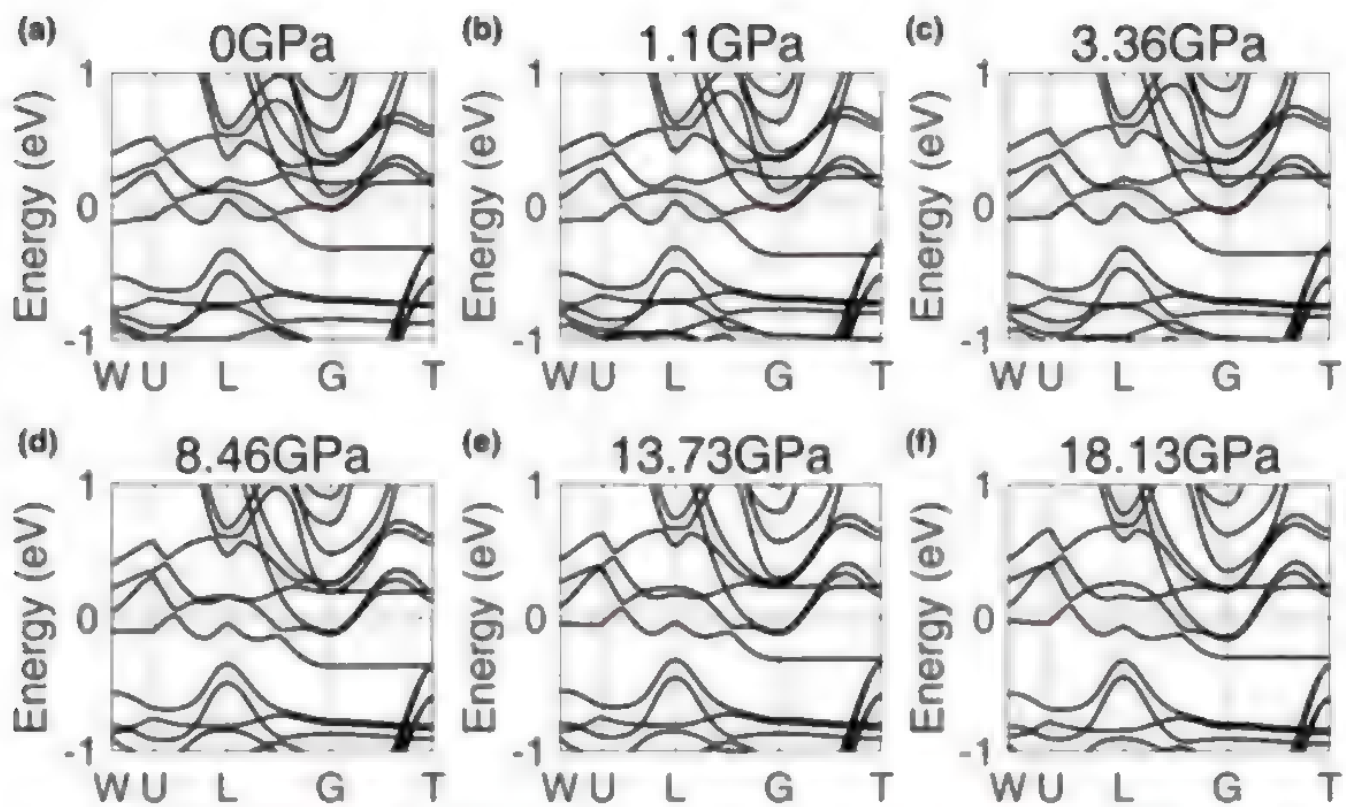


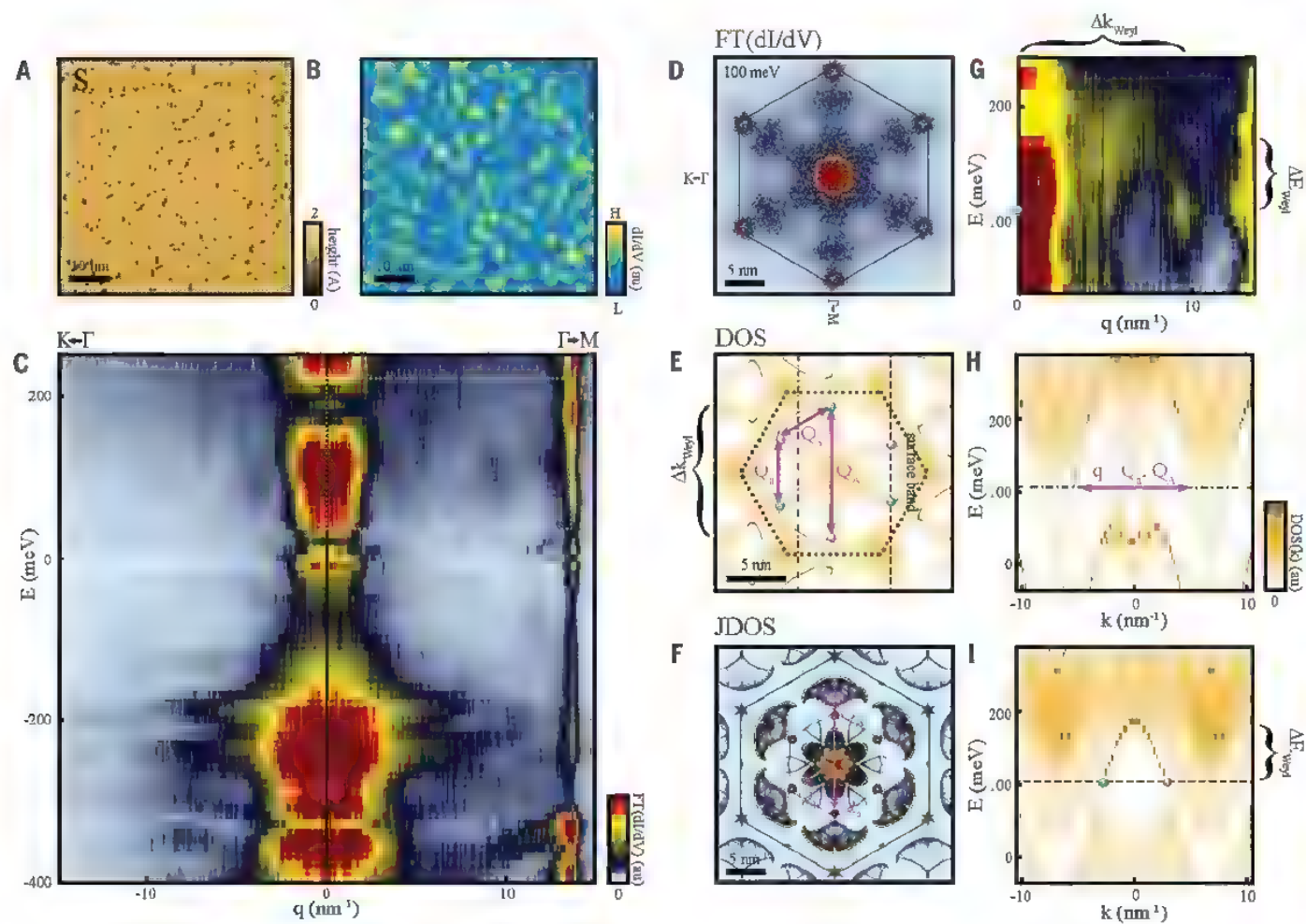
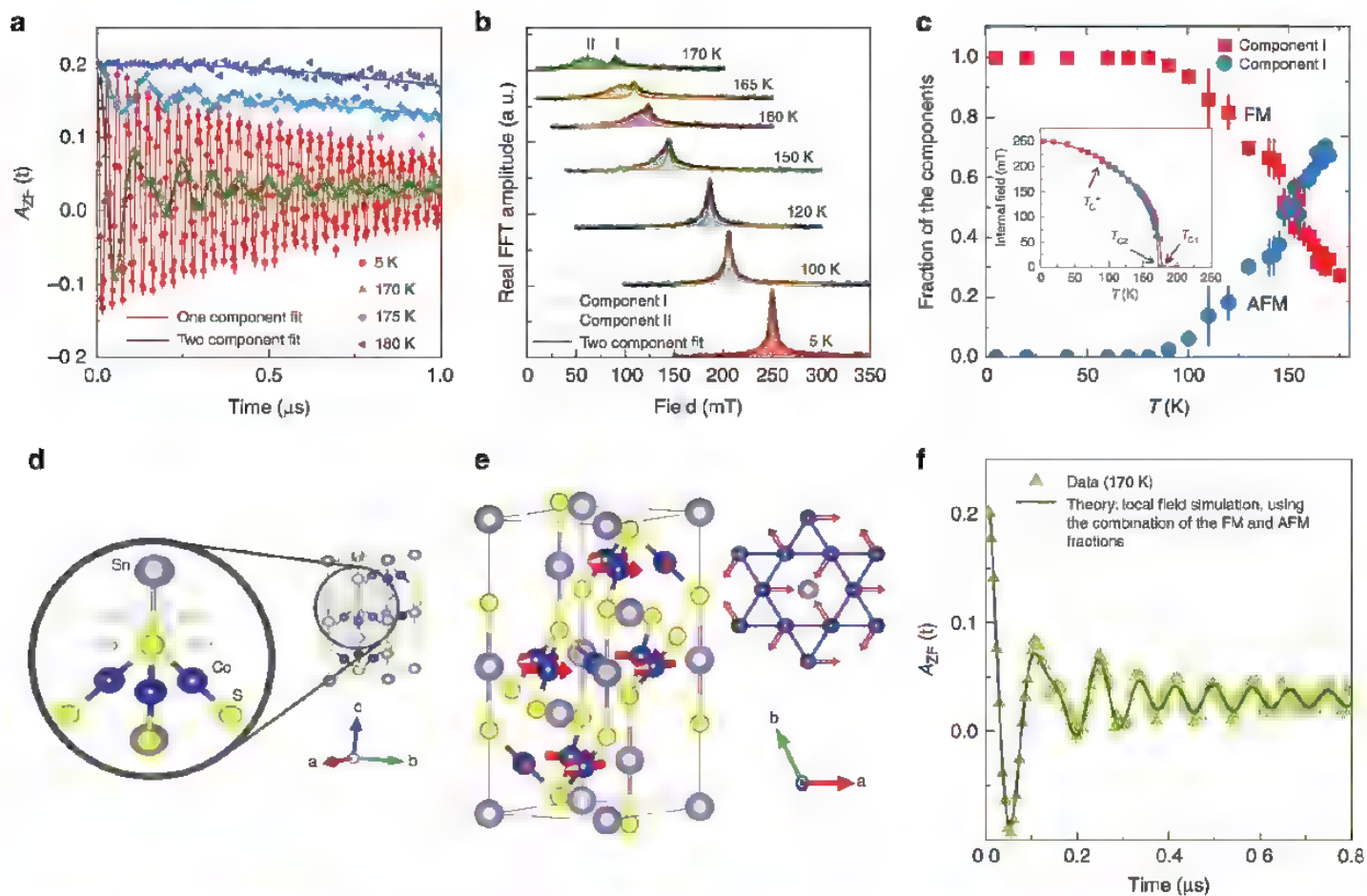


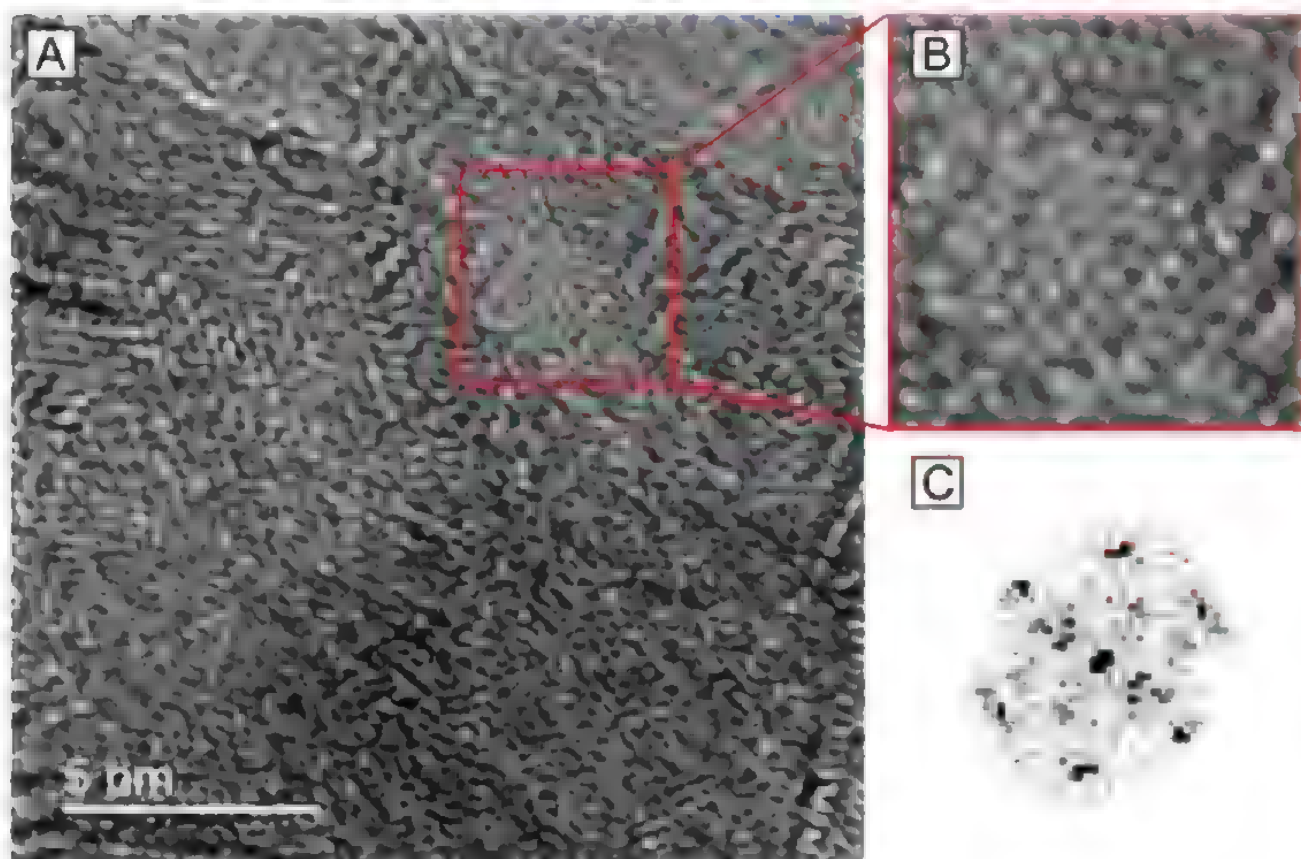
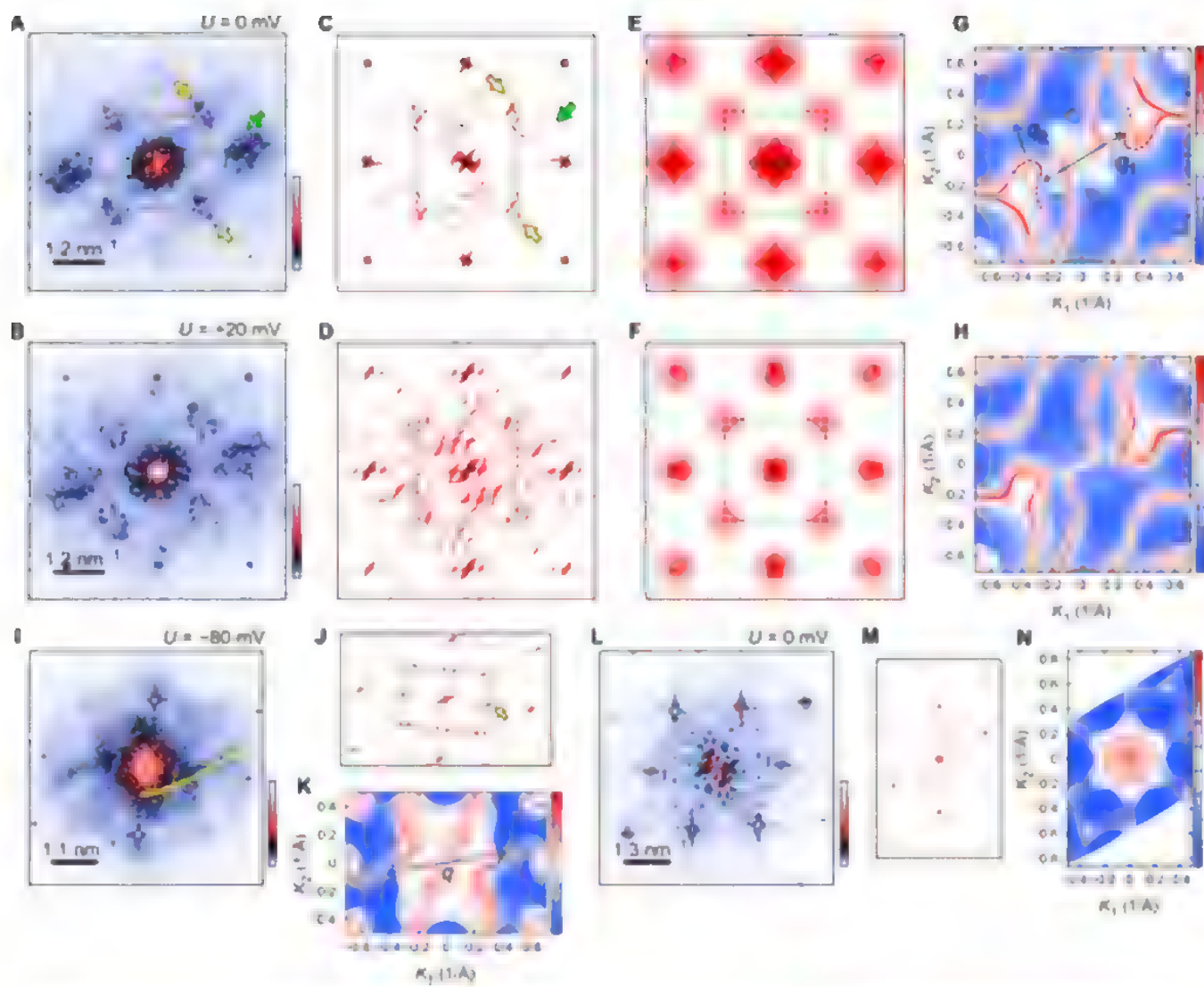




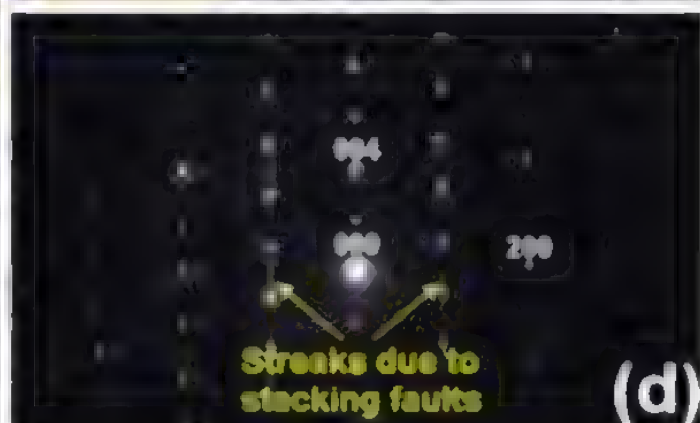
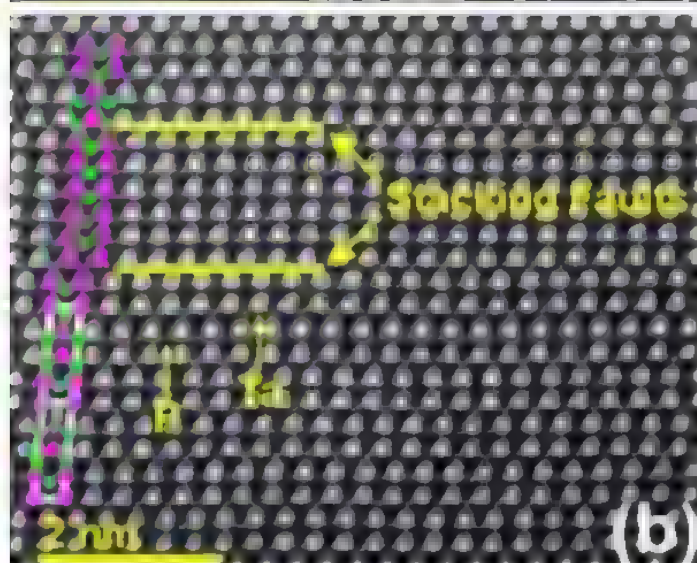
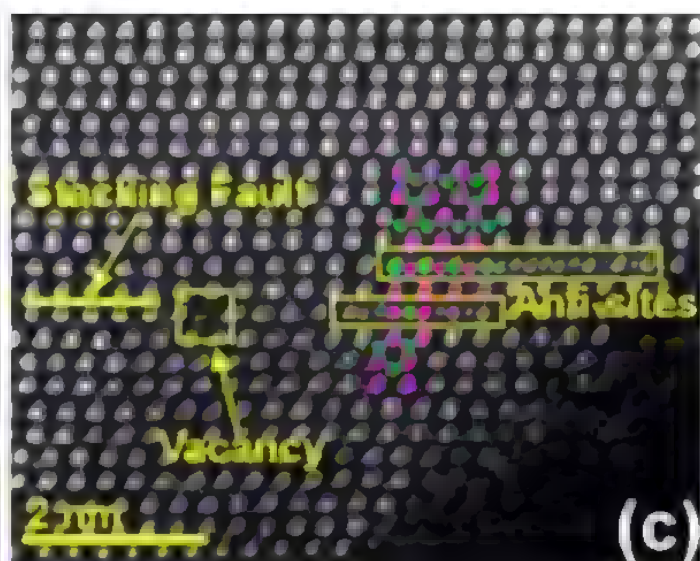
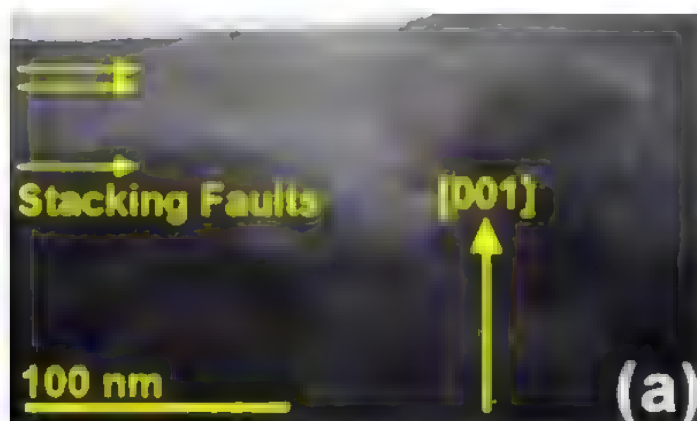
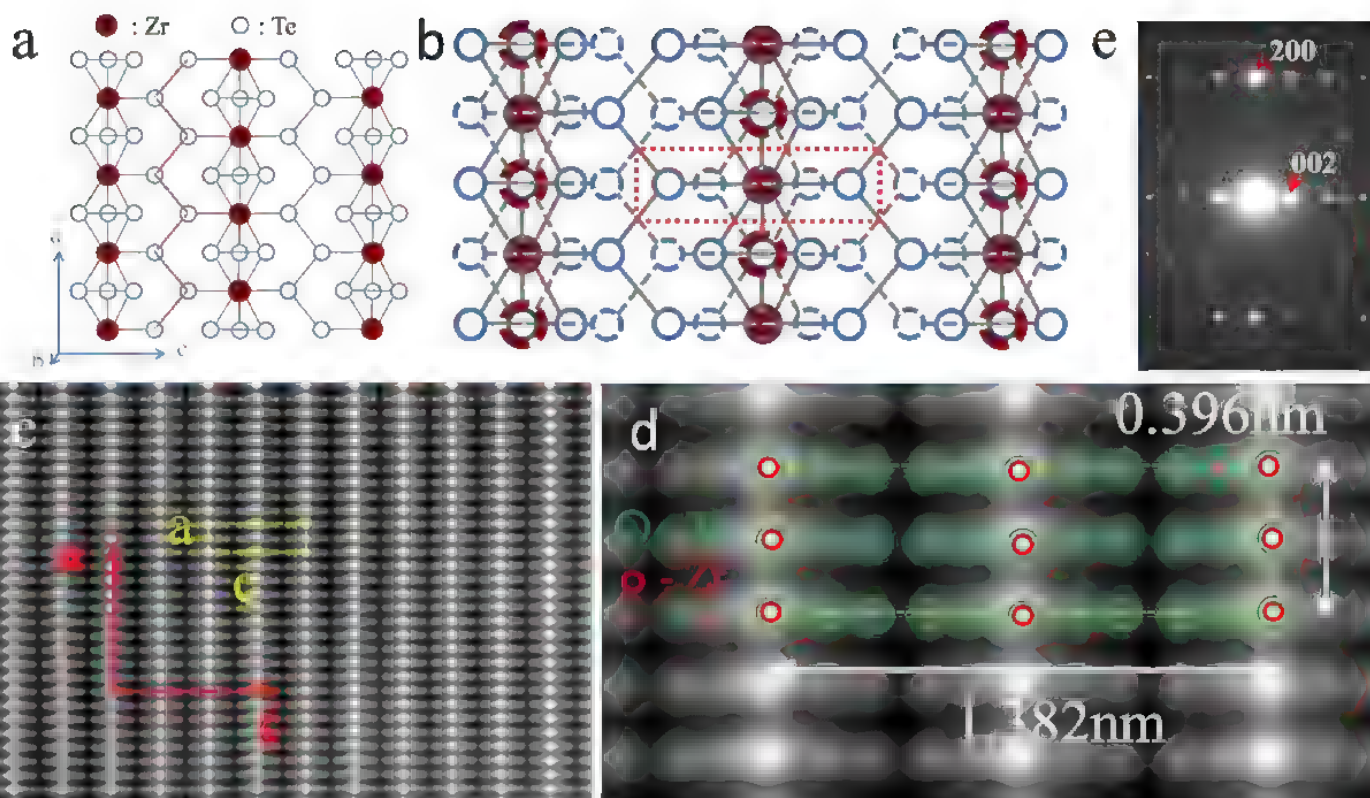




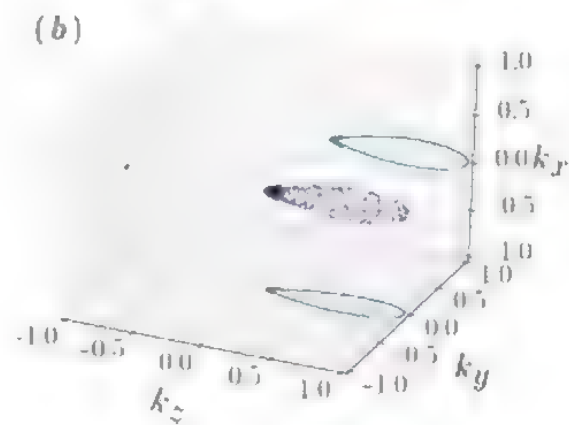
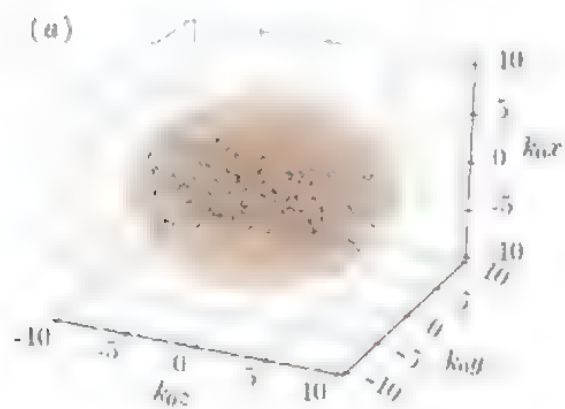
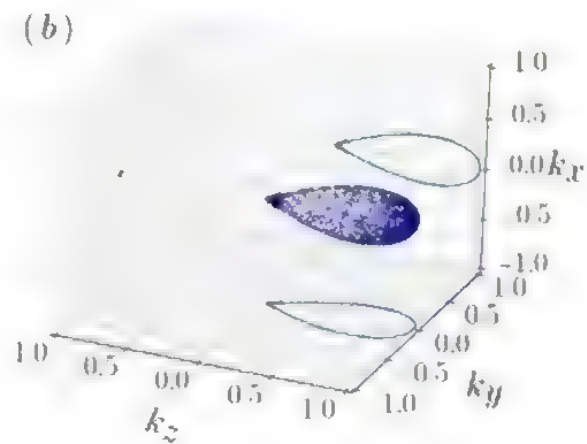
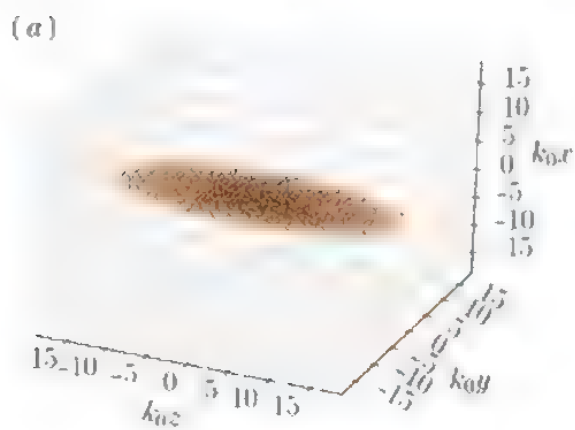
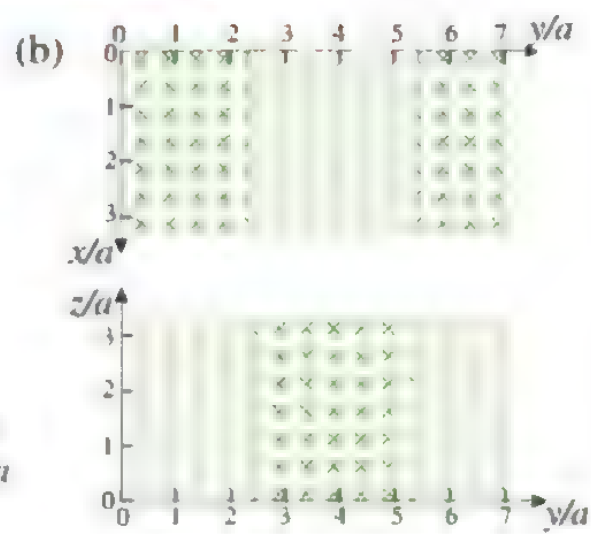
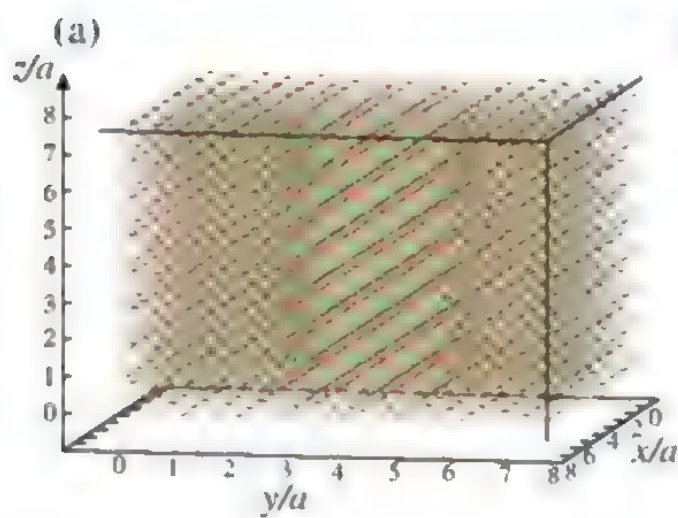
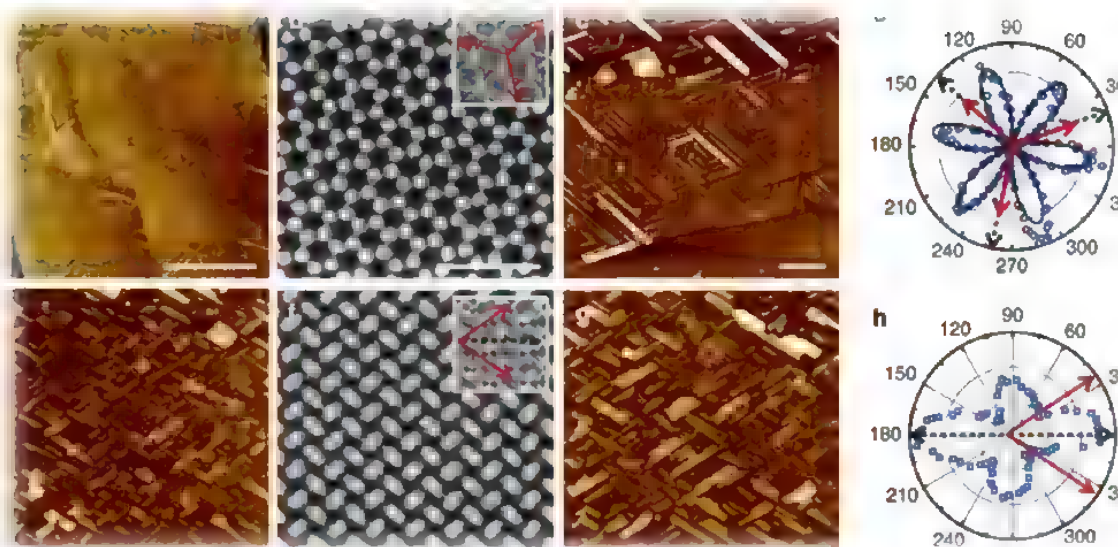




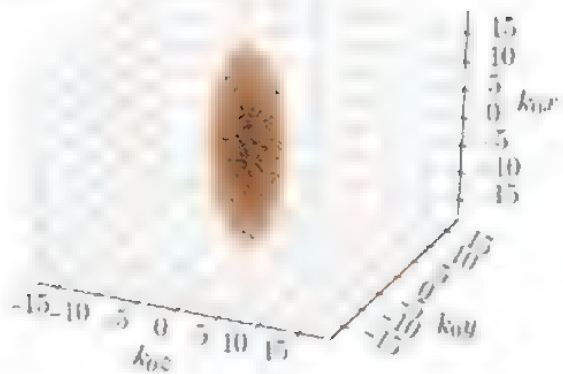




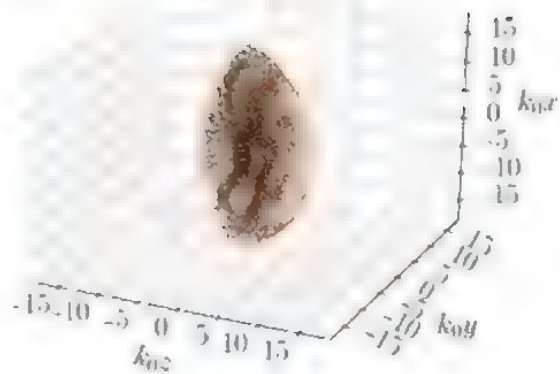




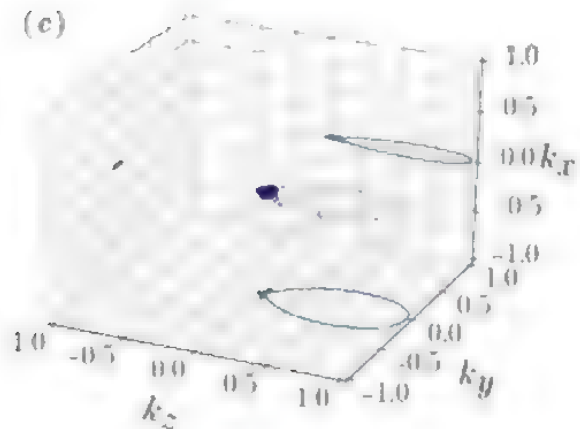
(a)



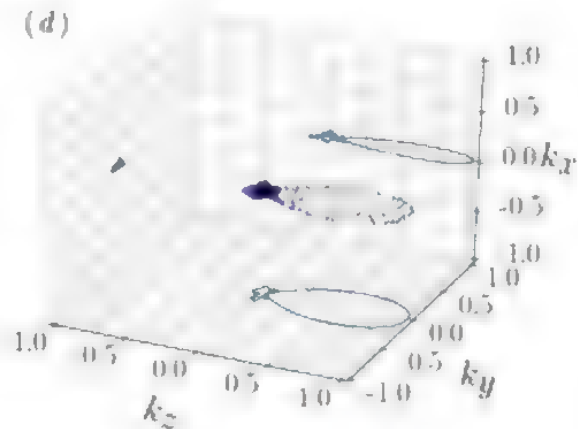
(b)



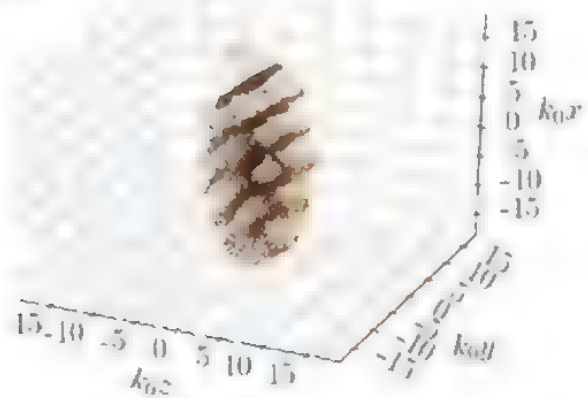
(c)



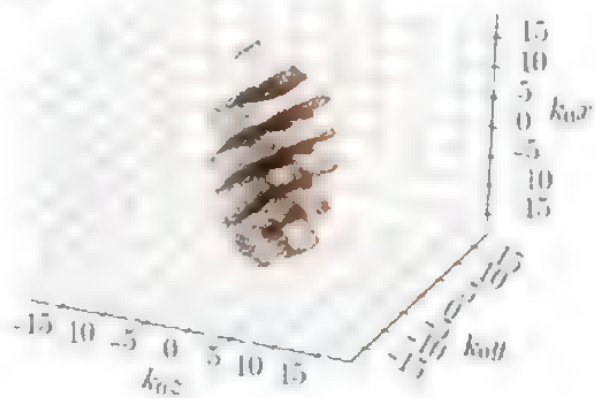
(d)



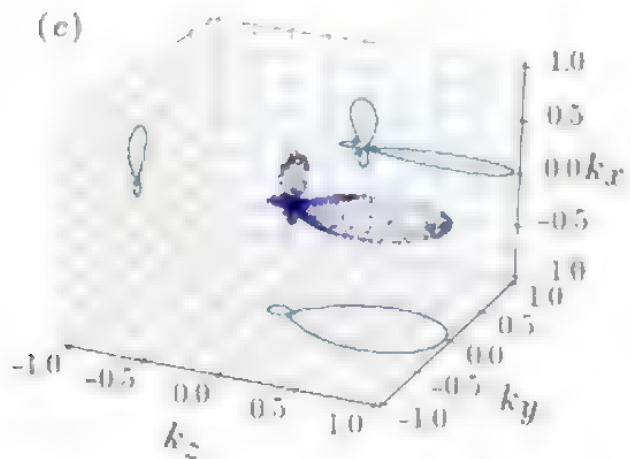
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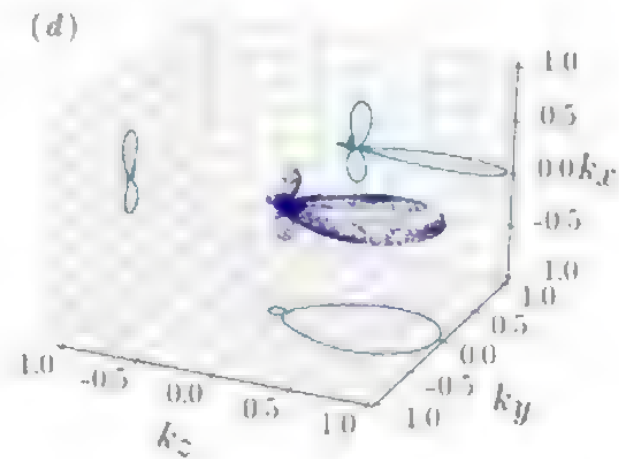
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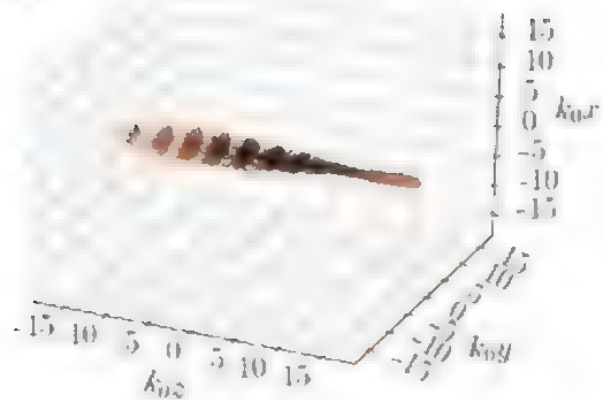
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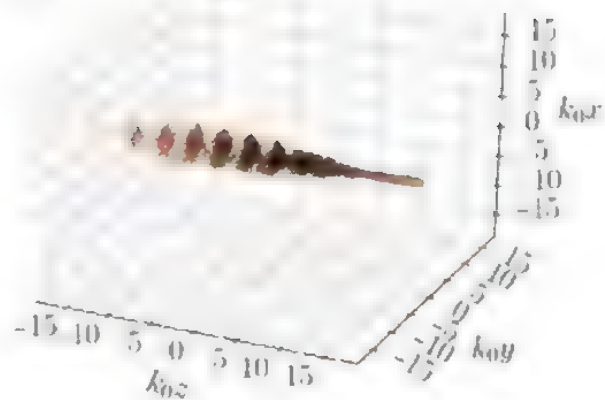
(d)



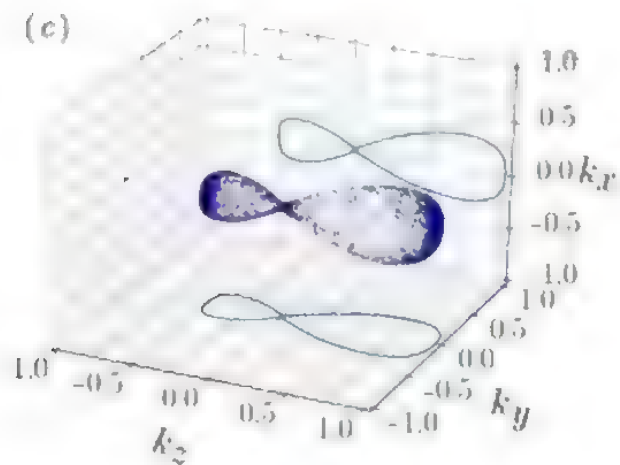
(a)



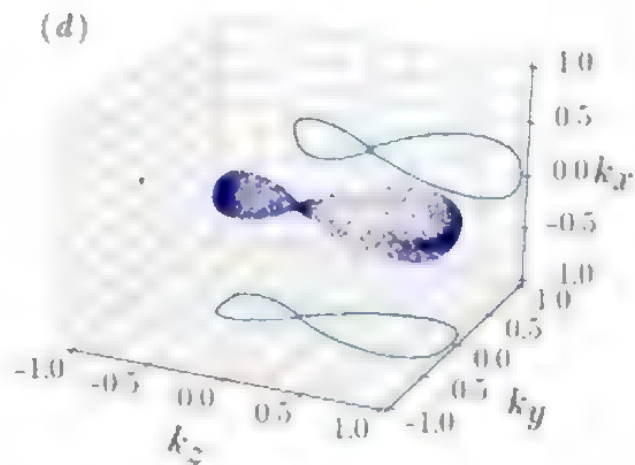
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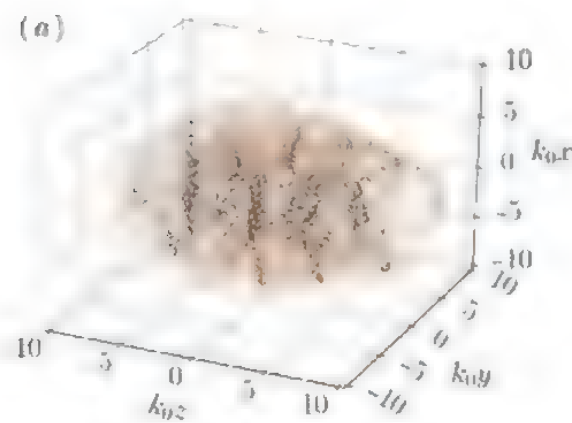
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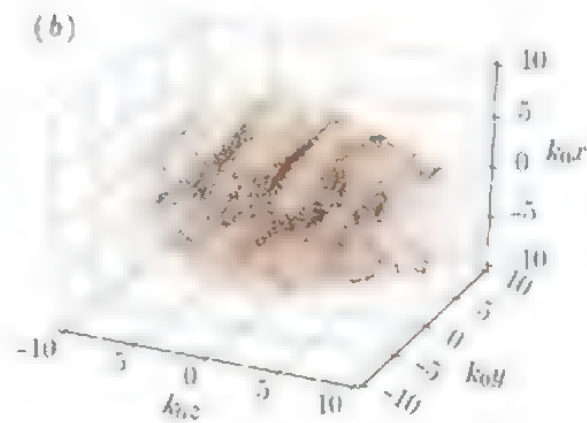
(d)



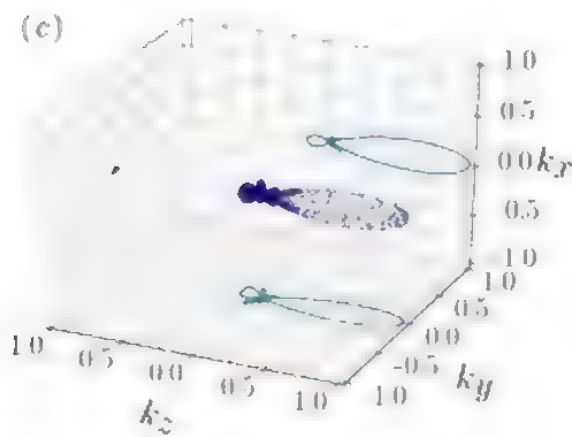
(a)



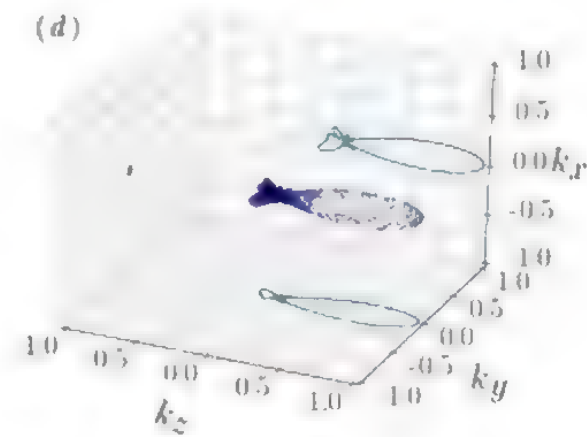
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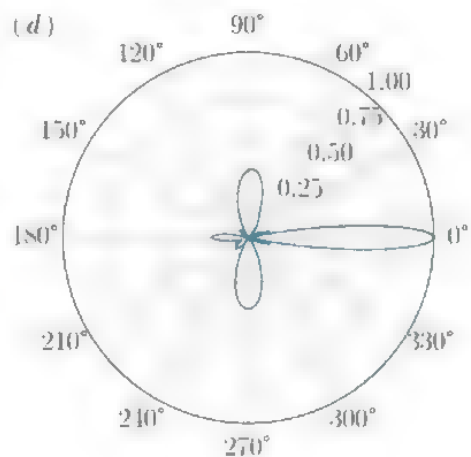
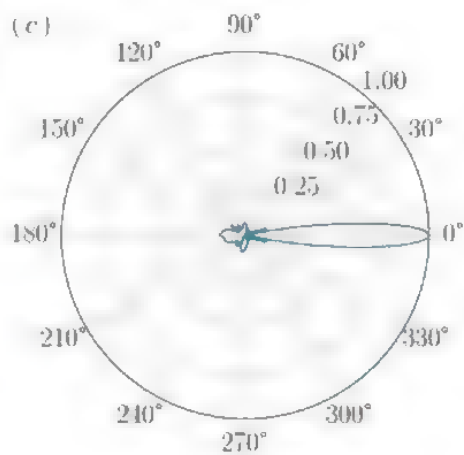
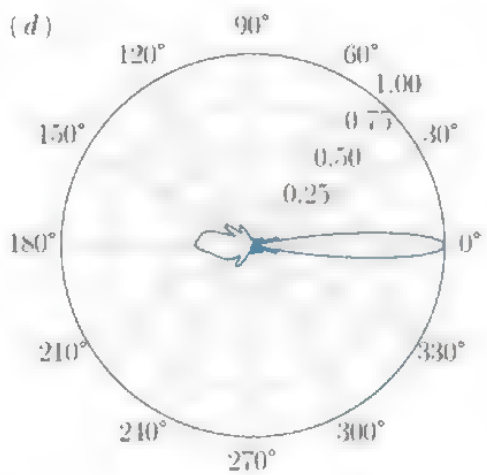
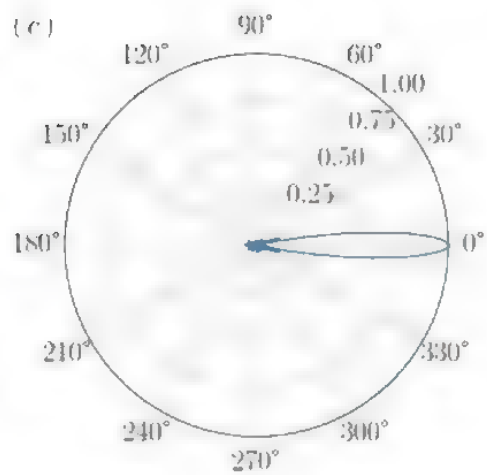
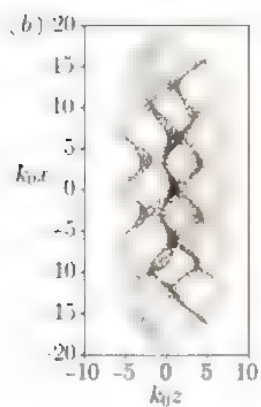
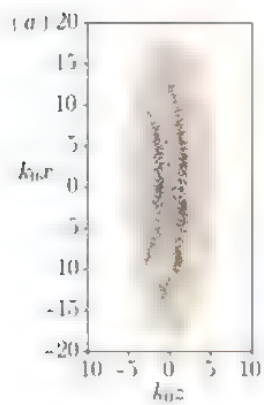
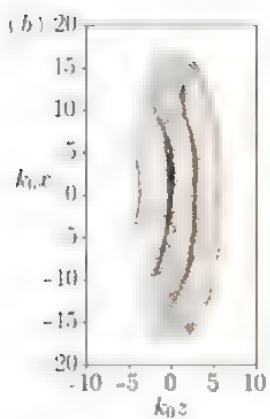
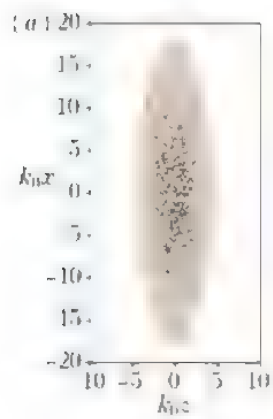


(c)

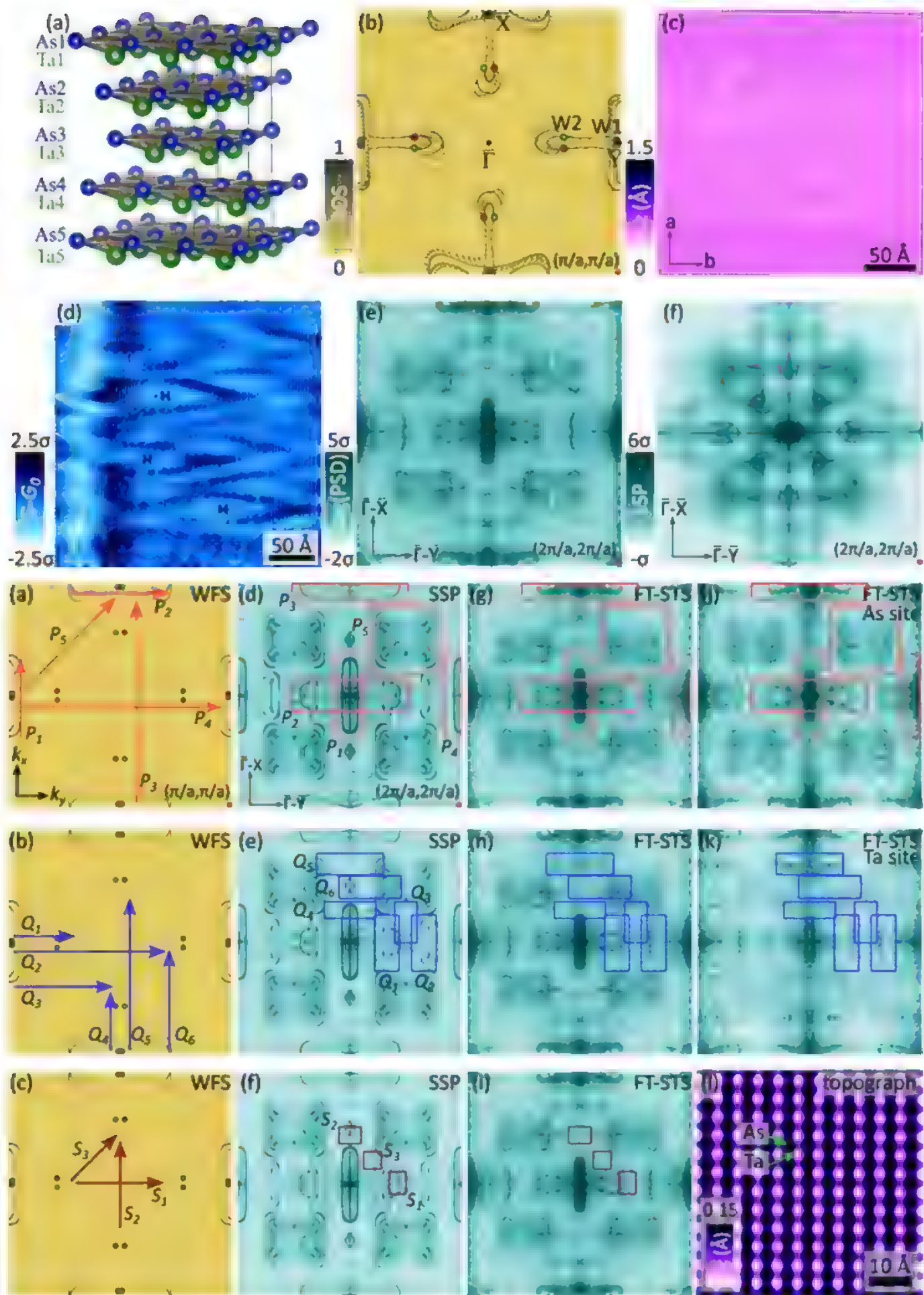


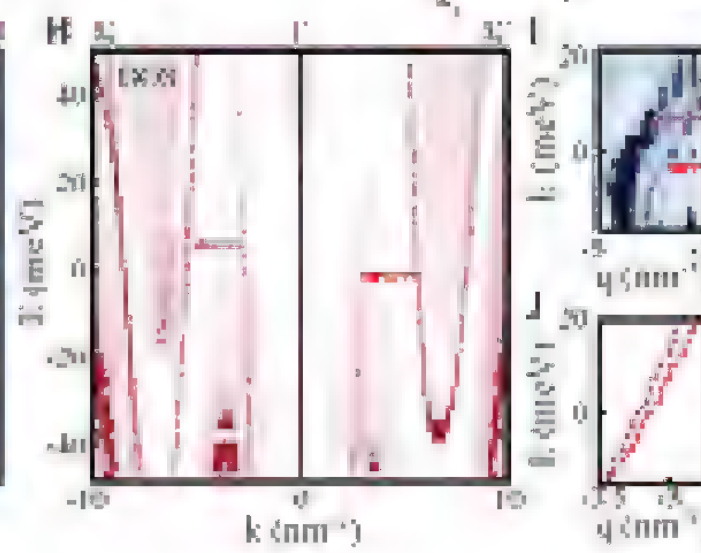
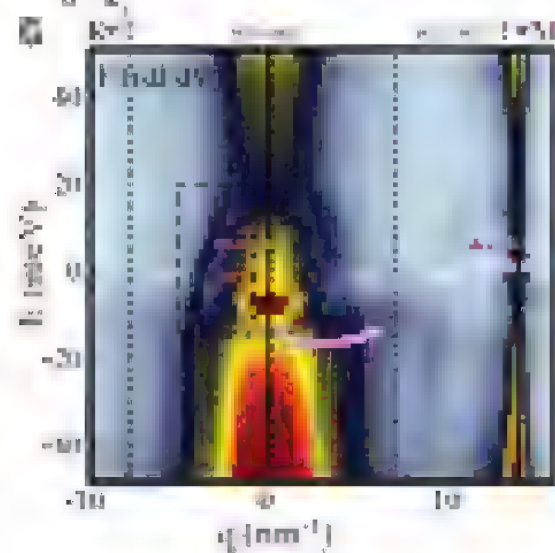
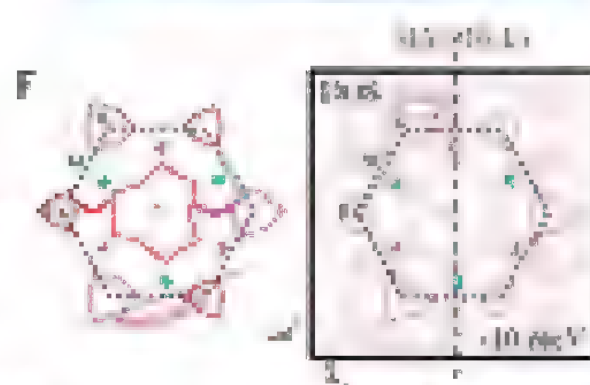
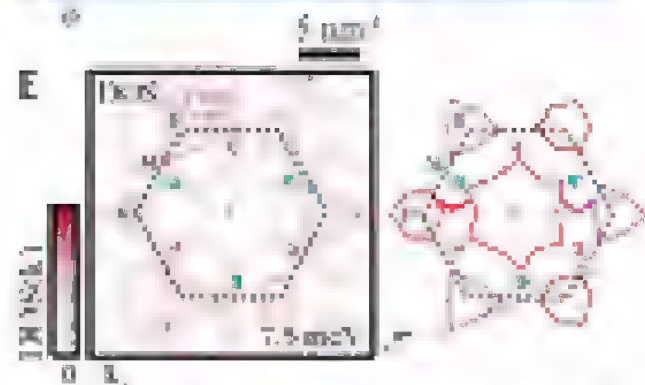
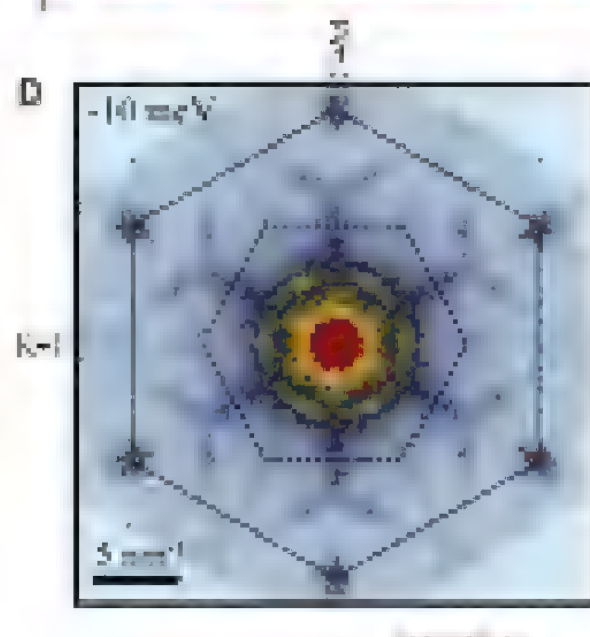
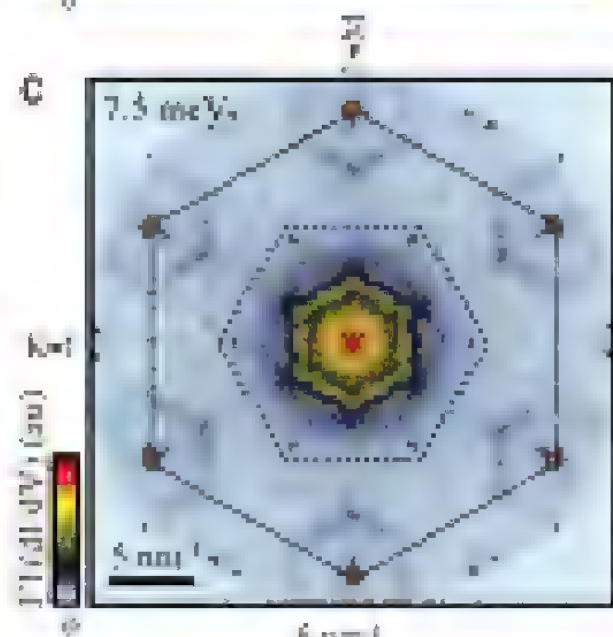
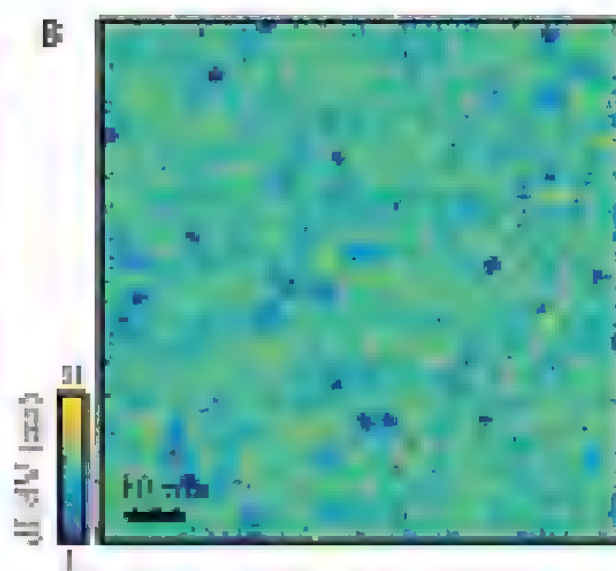
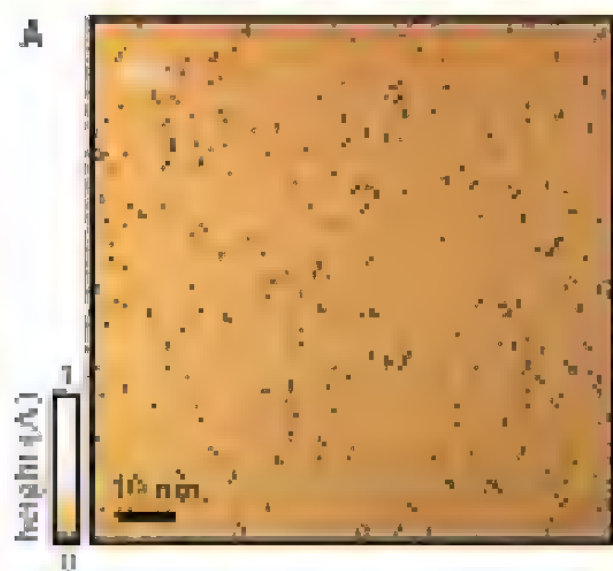
(d)

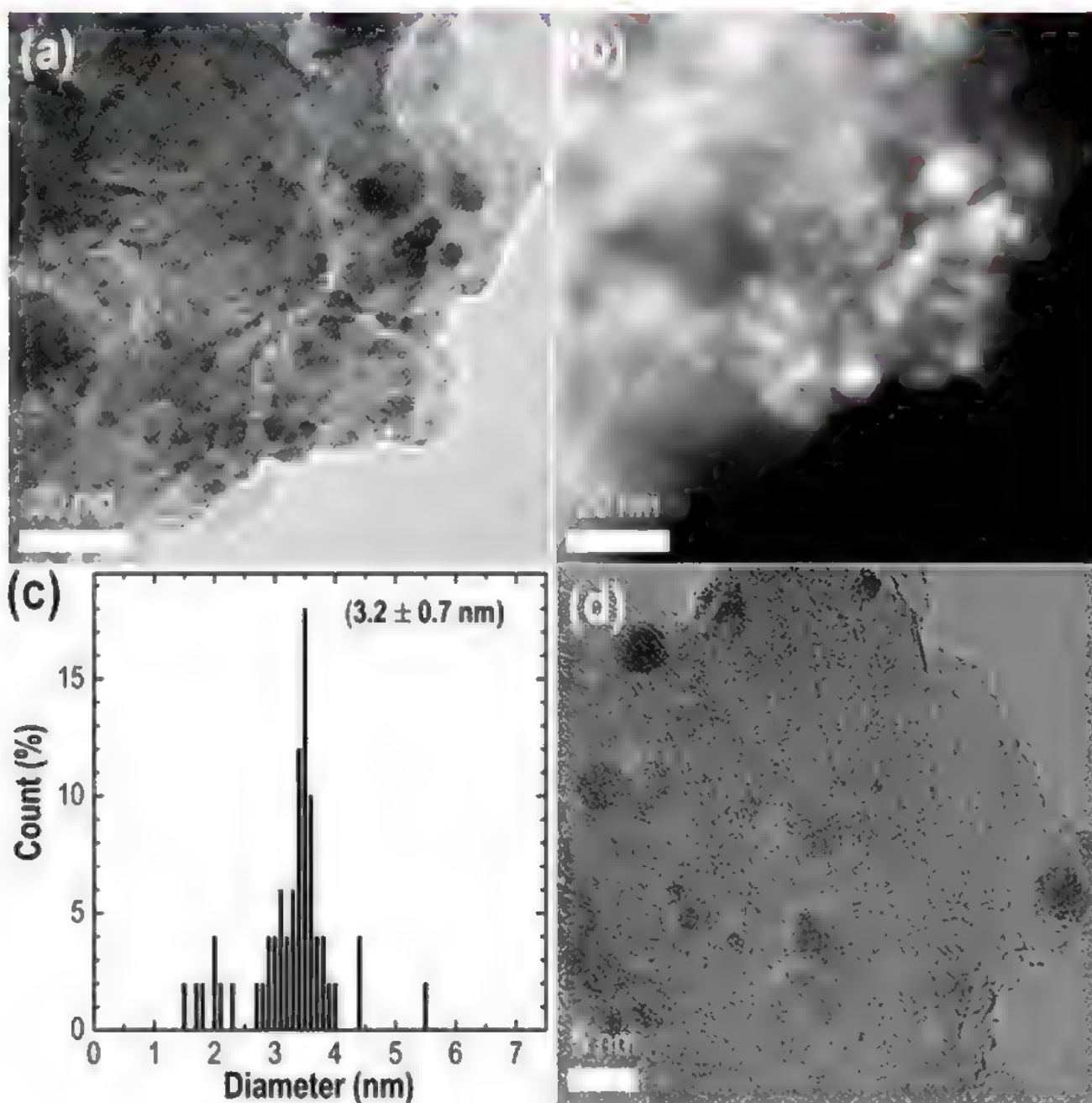
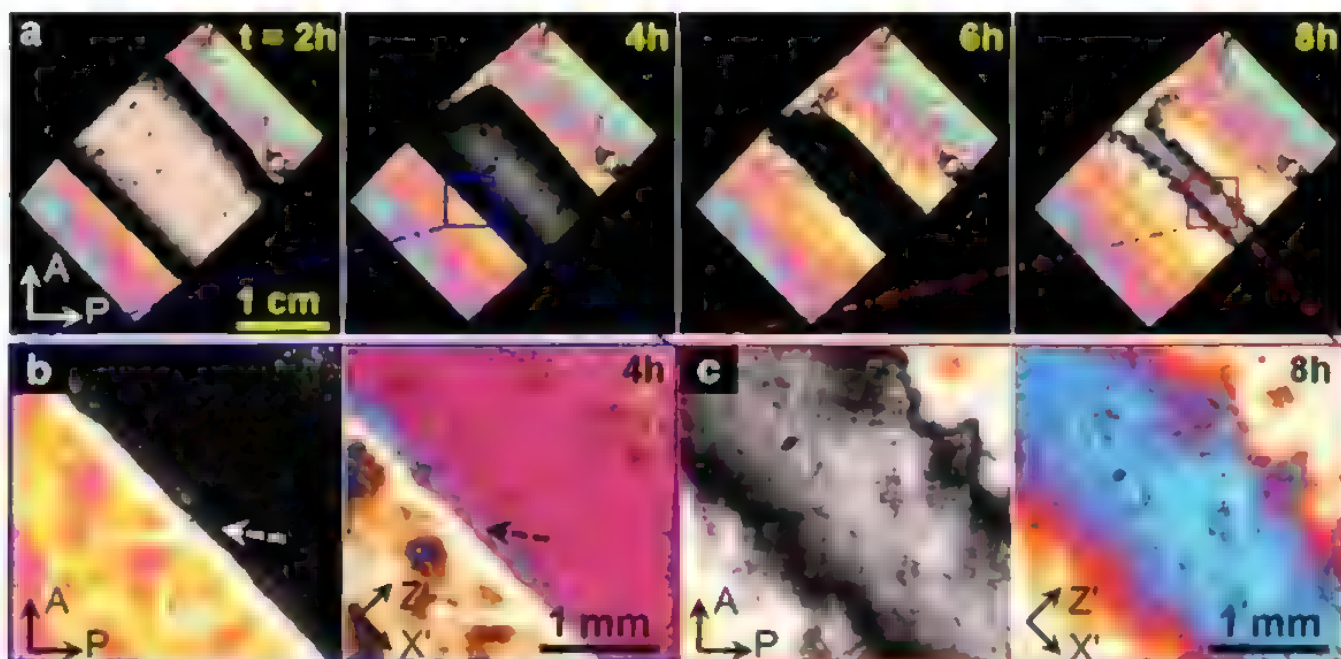






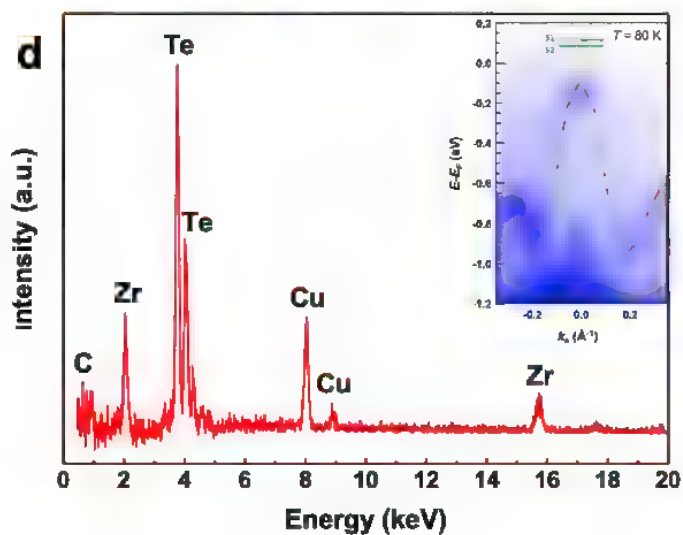
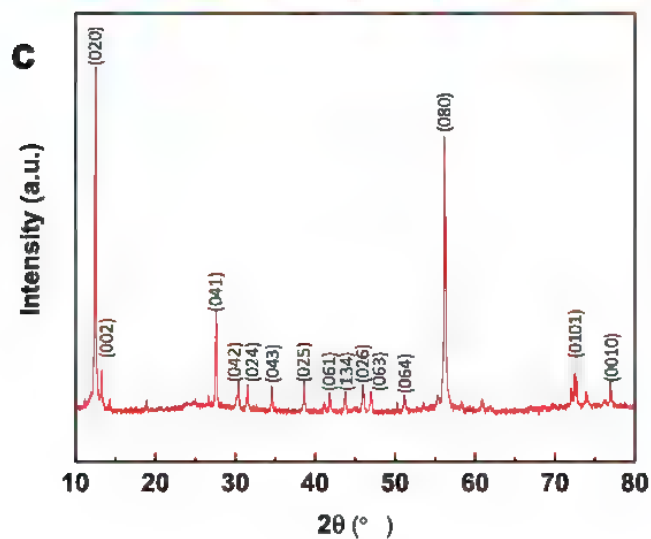
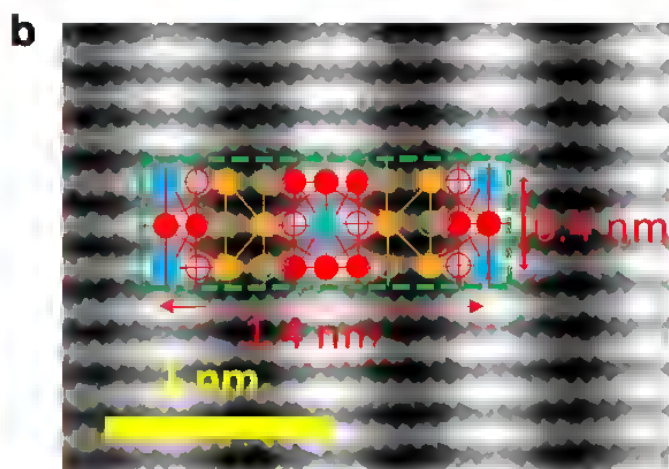
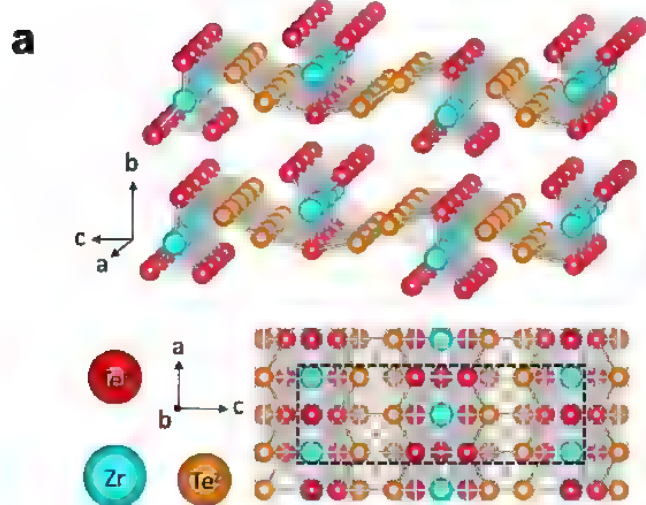
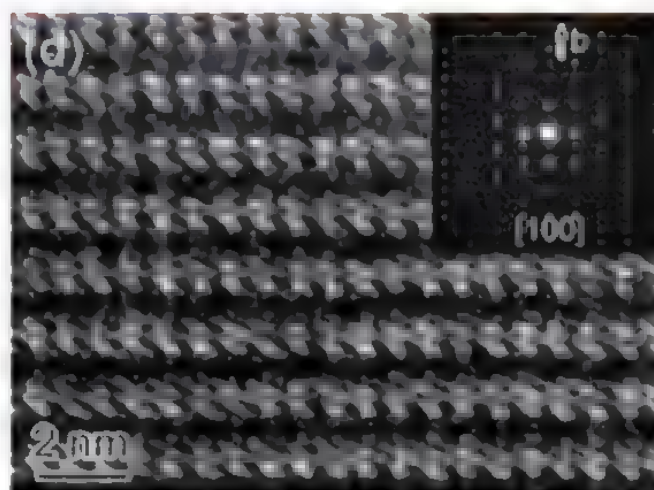
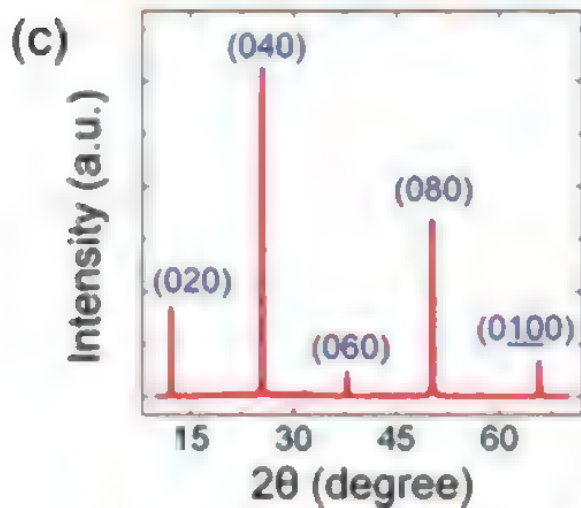
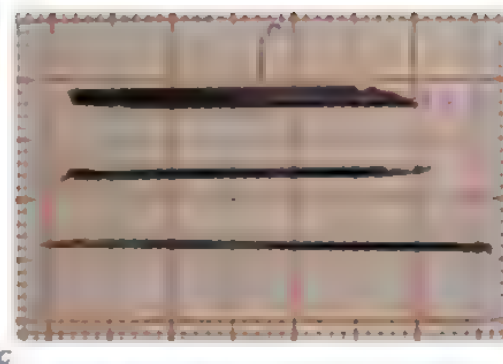




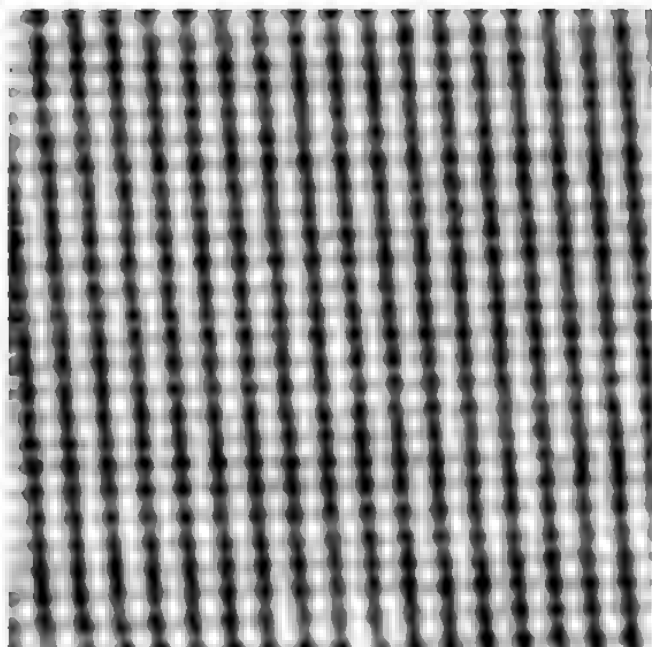




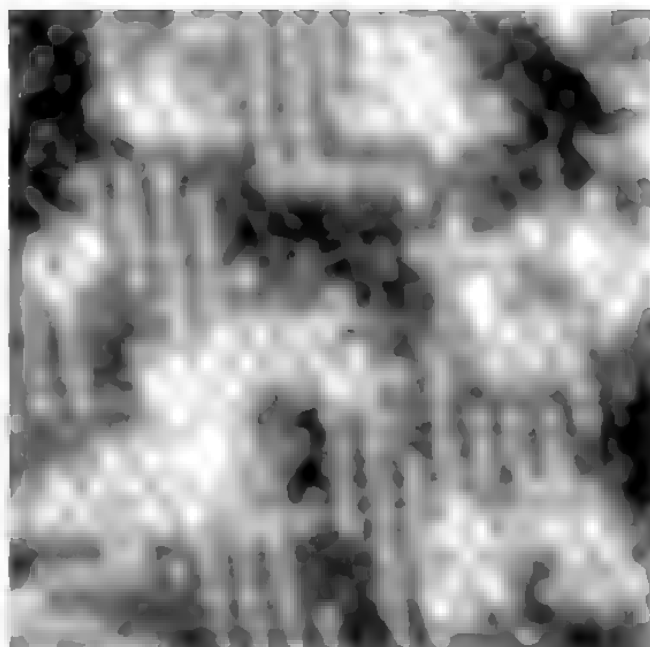
(b)



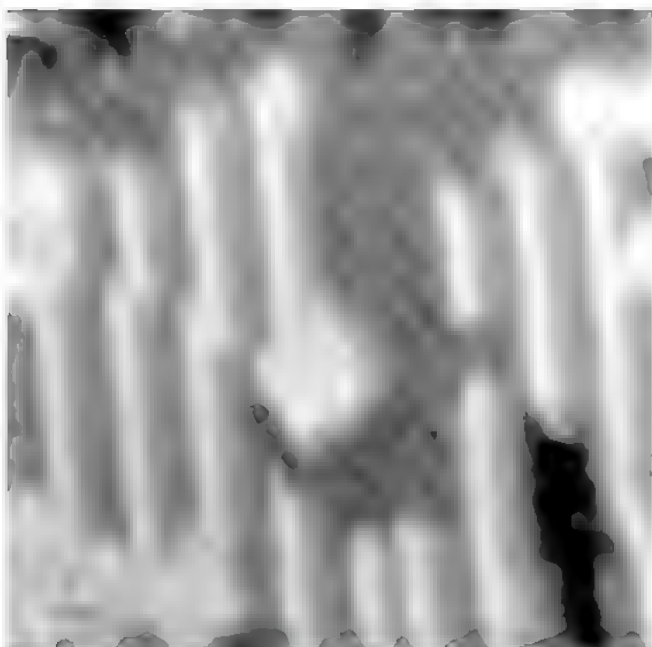




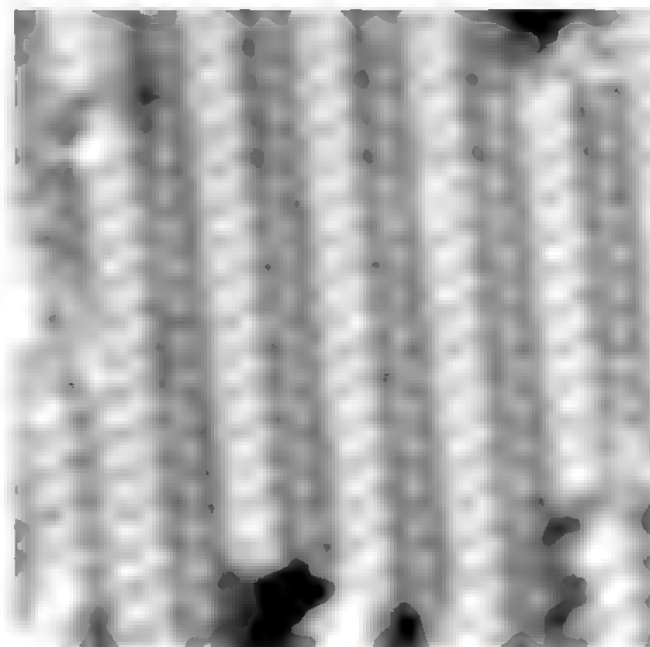
(a)



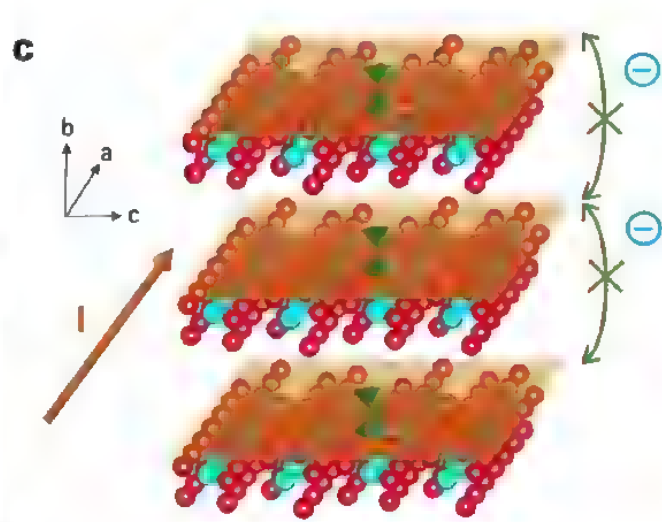
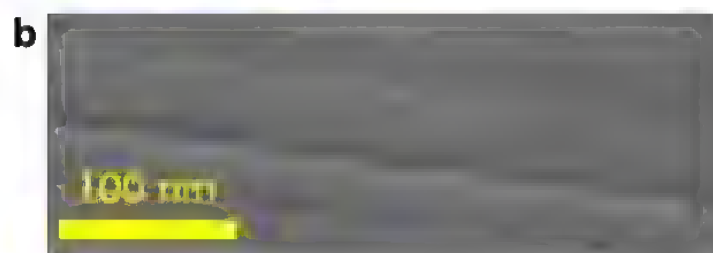
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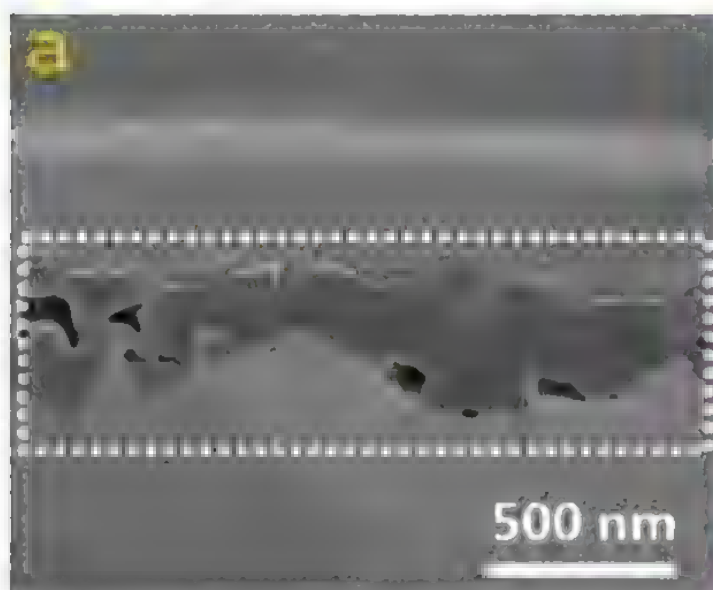
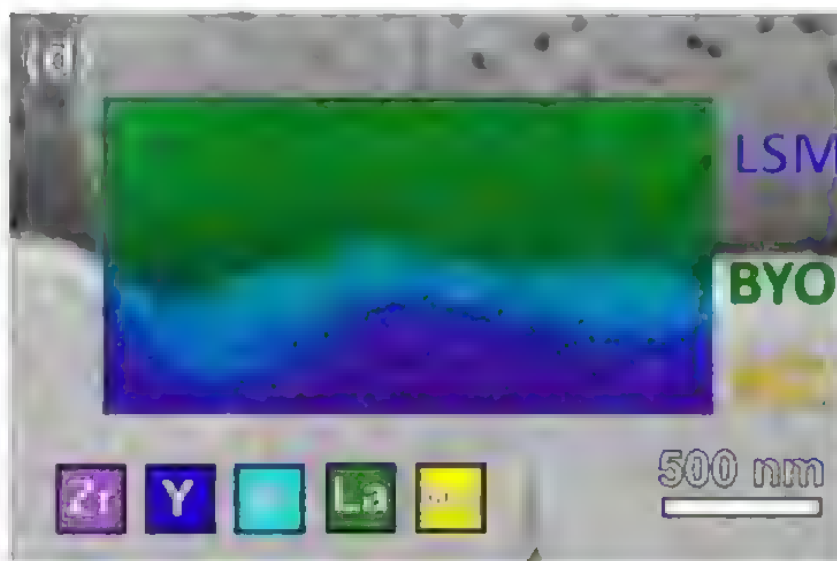
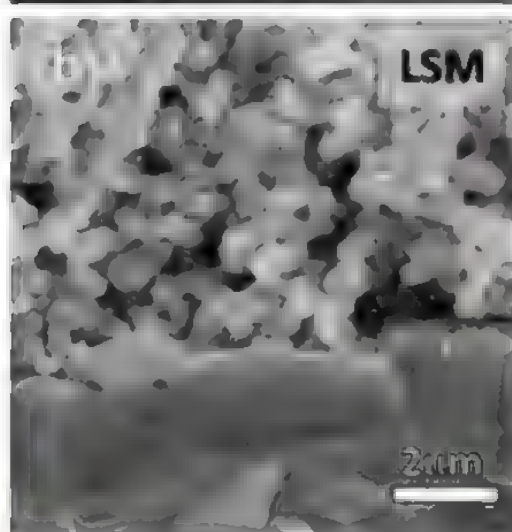
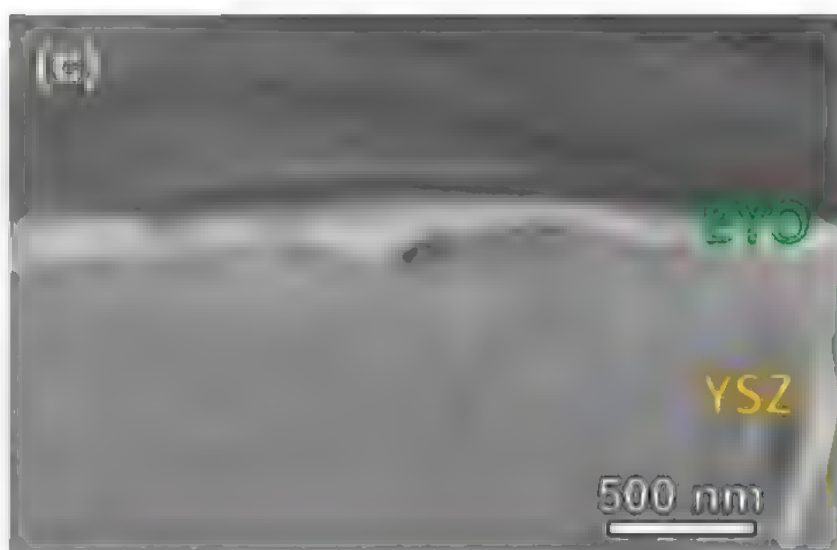
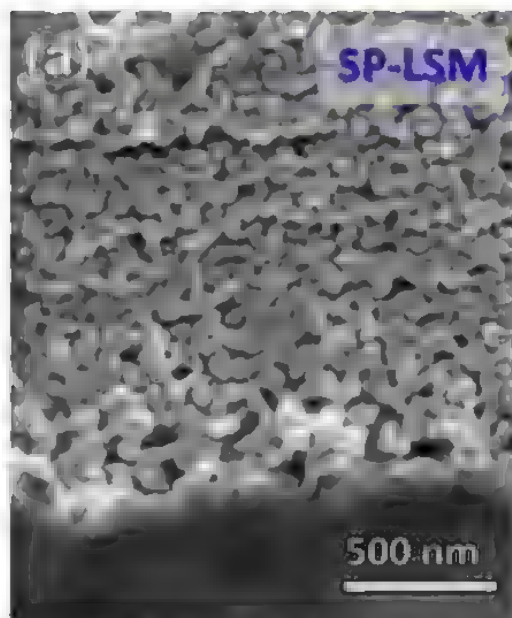


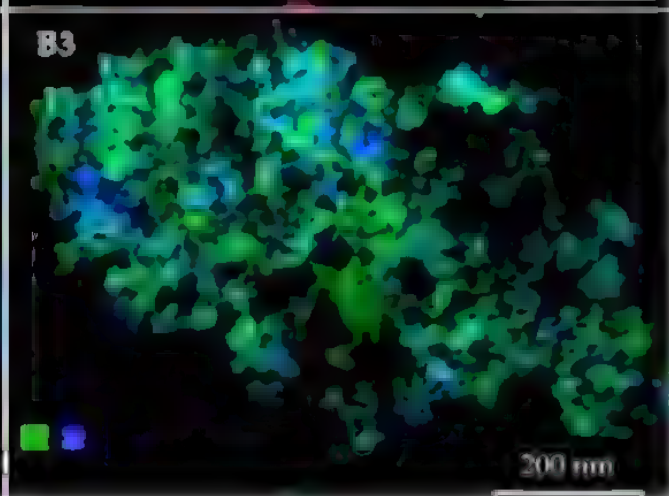
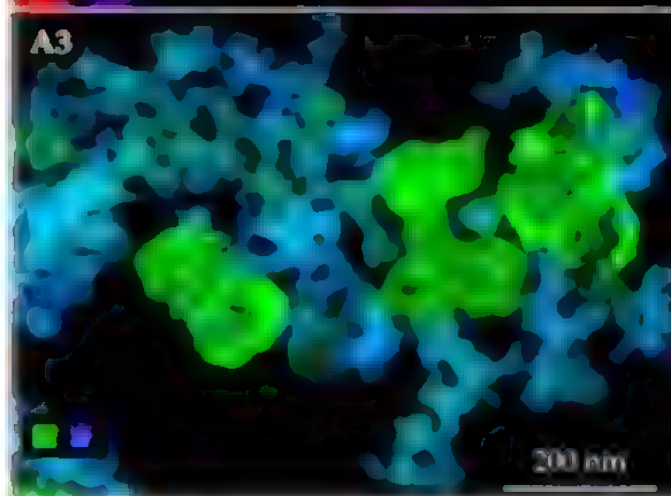
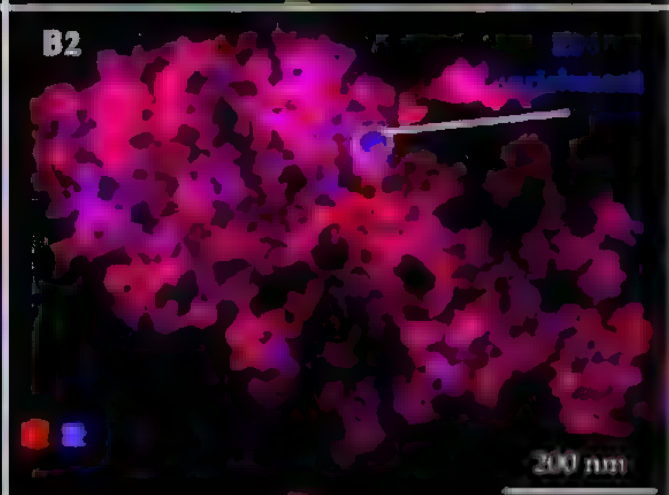
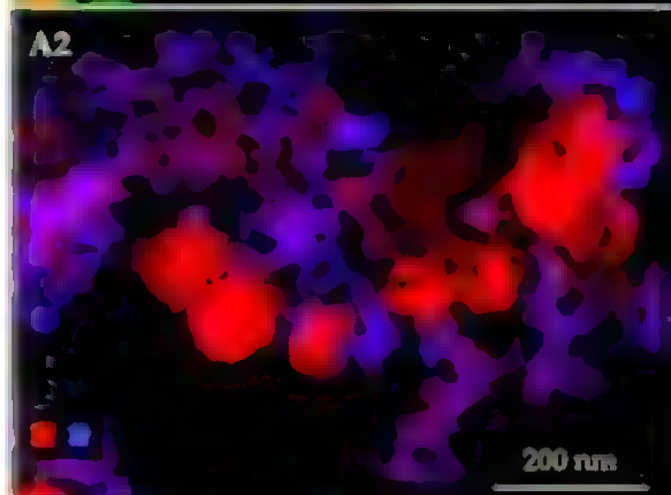
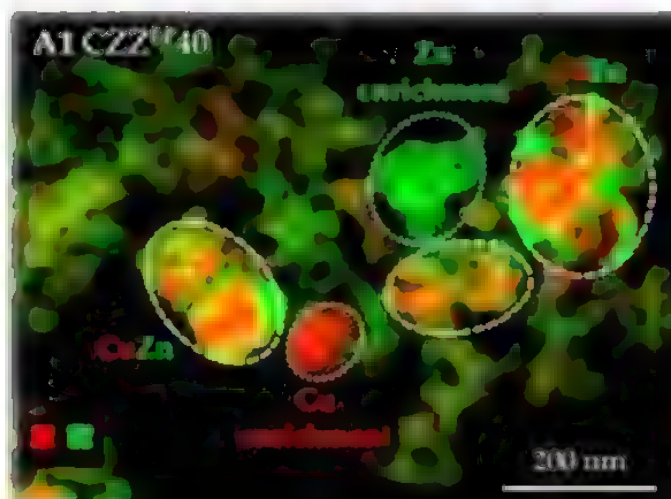
(c)

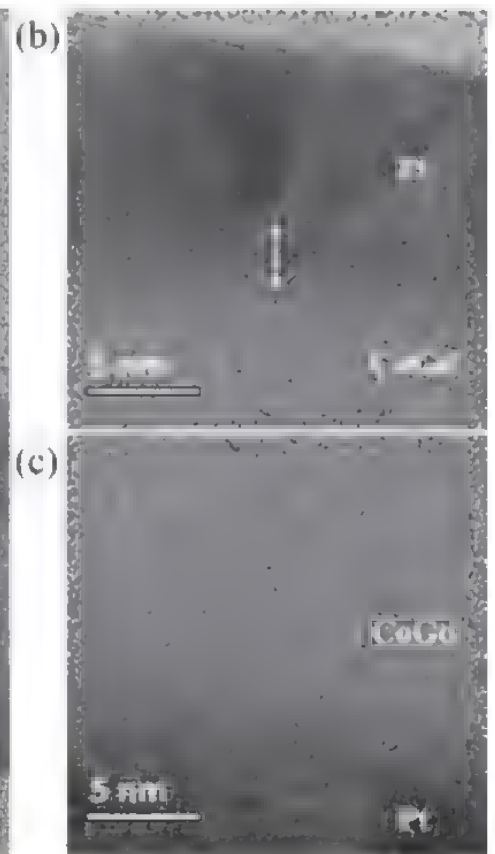
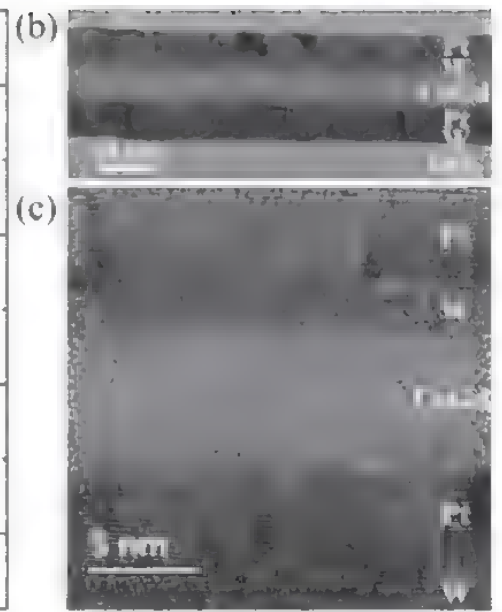
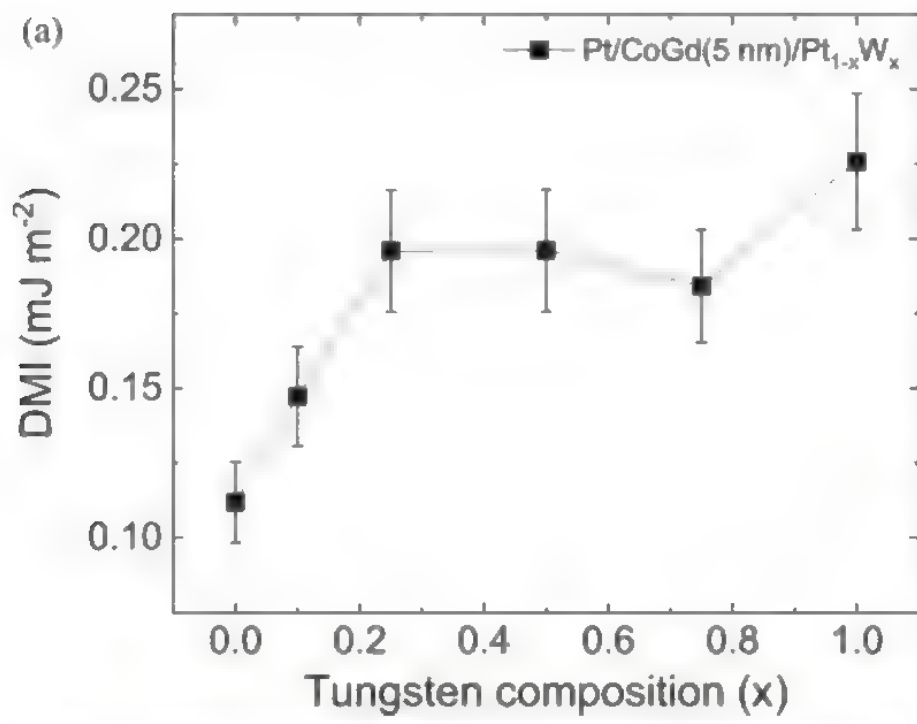


(d)

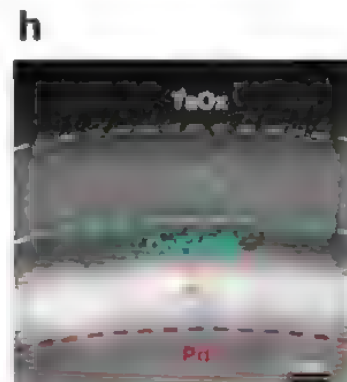
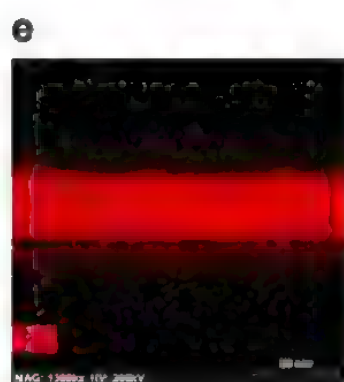
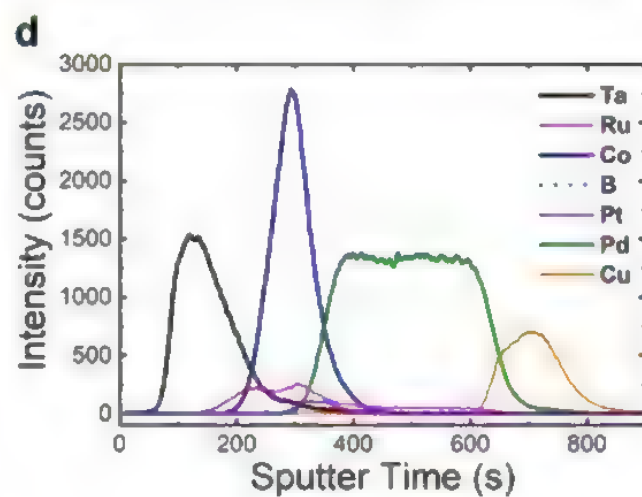
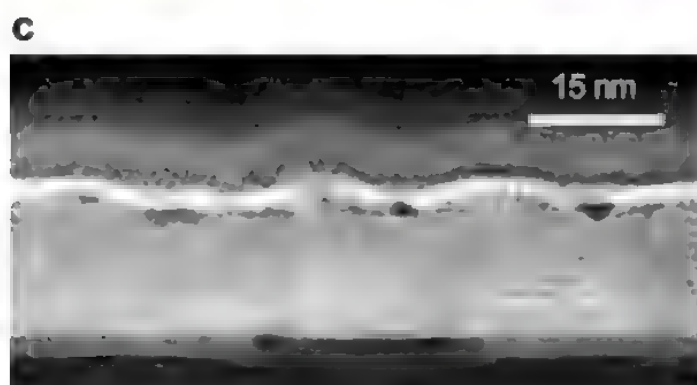
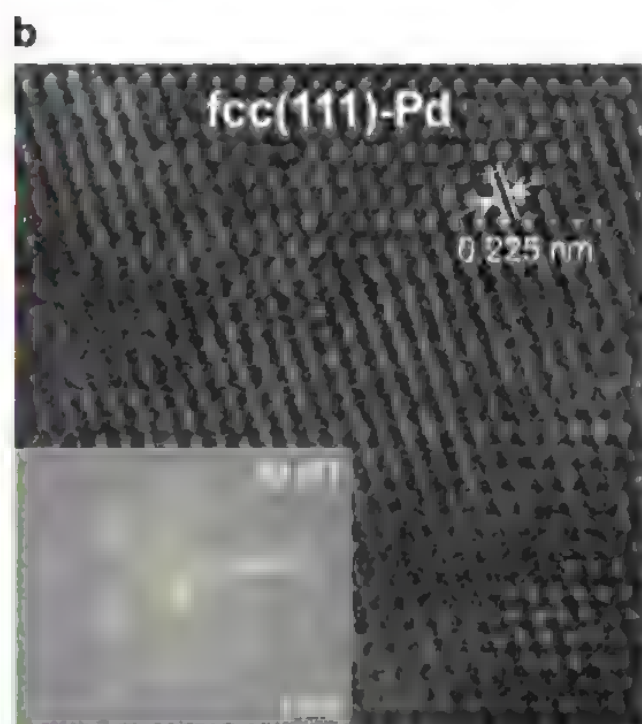
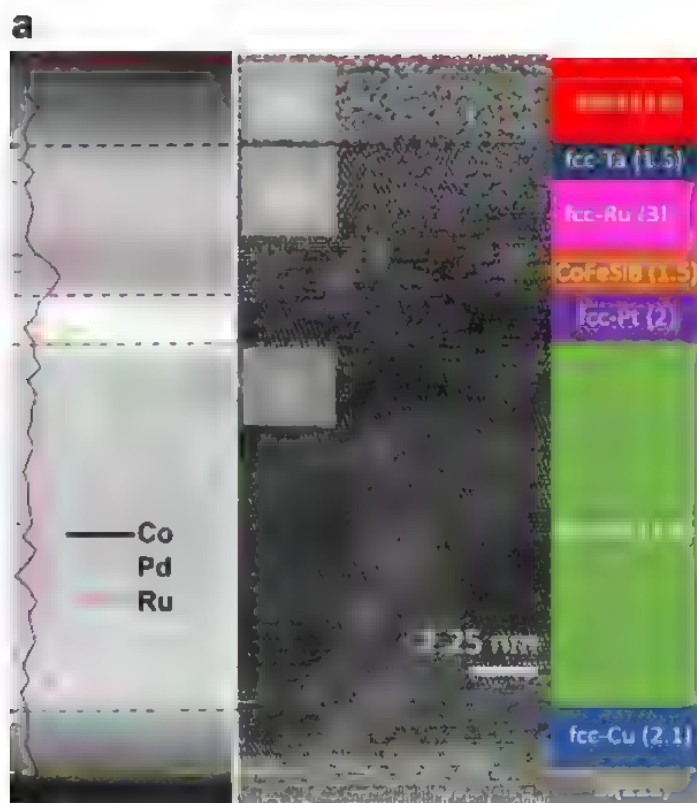


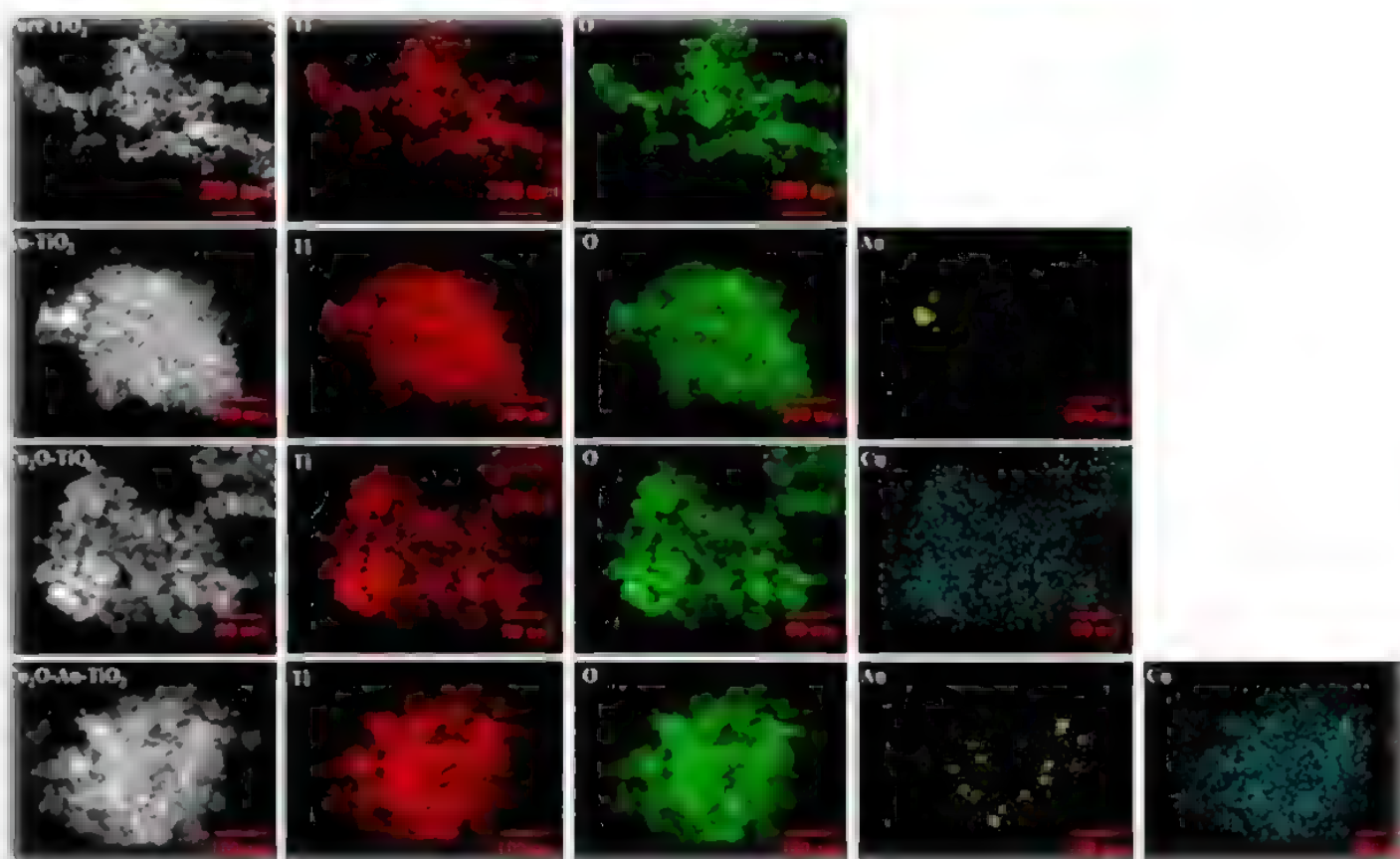
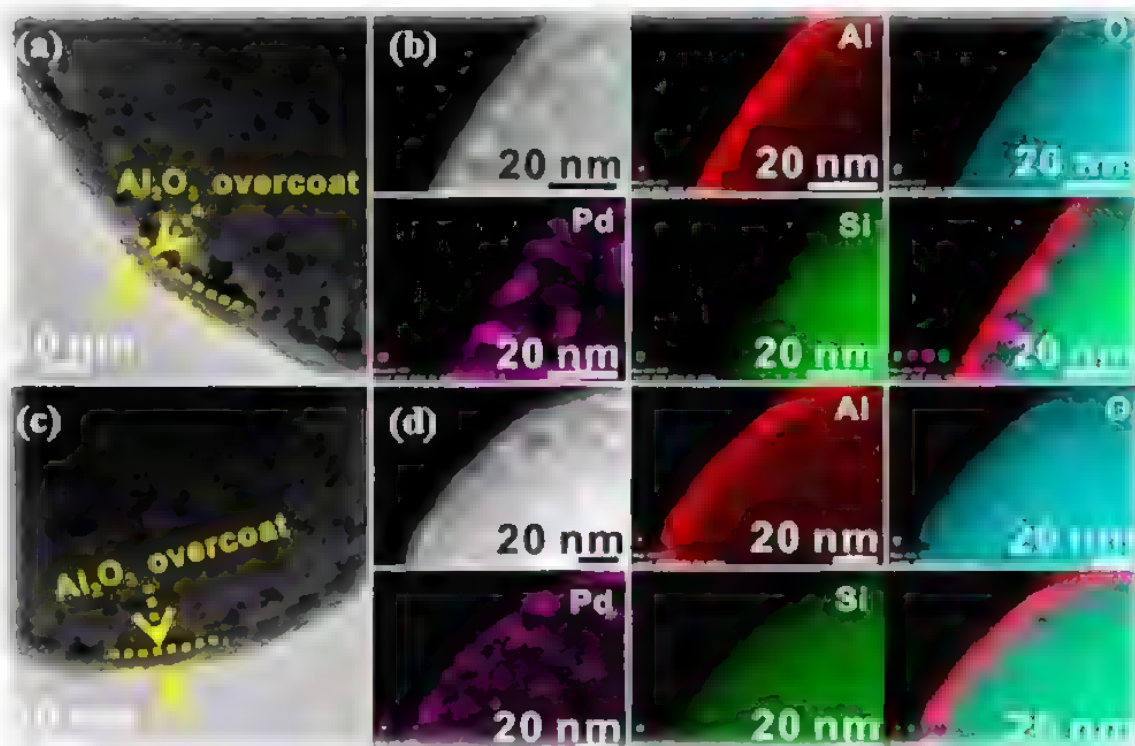


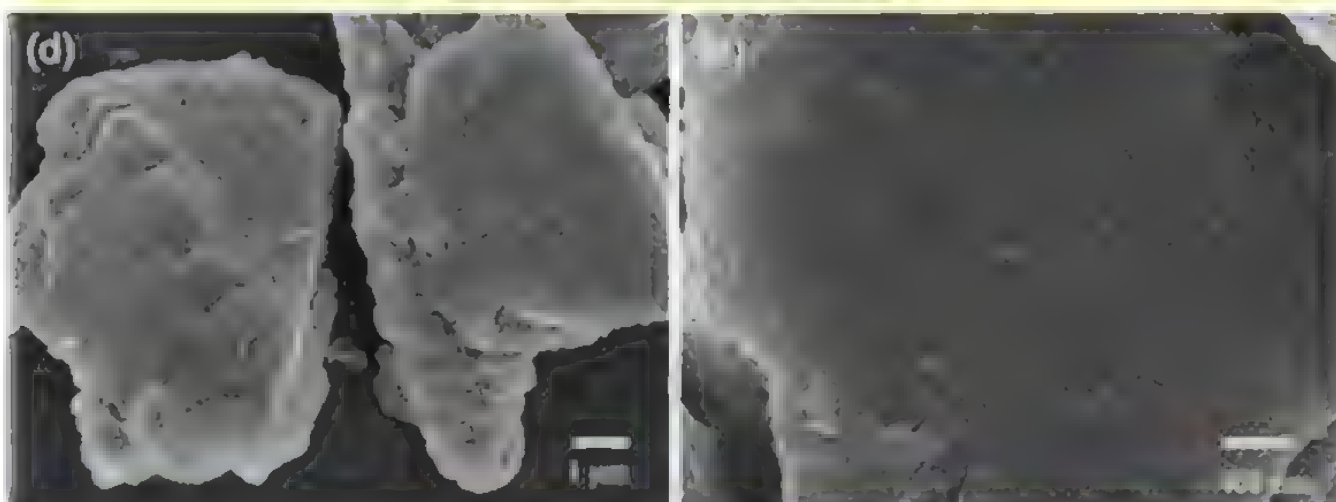
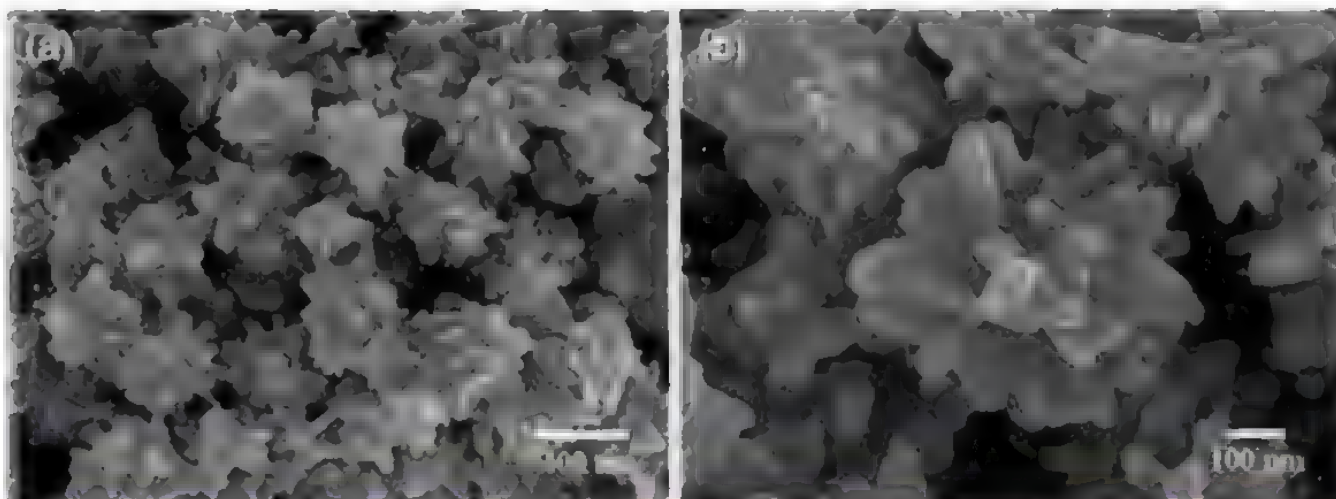


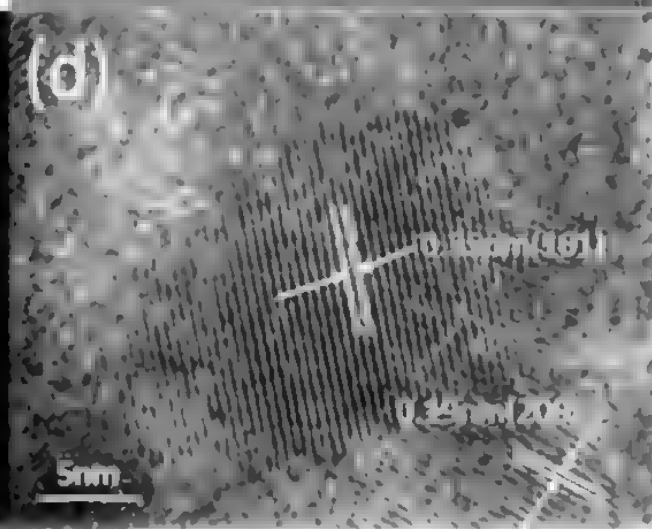
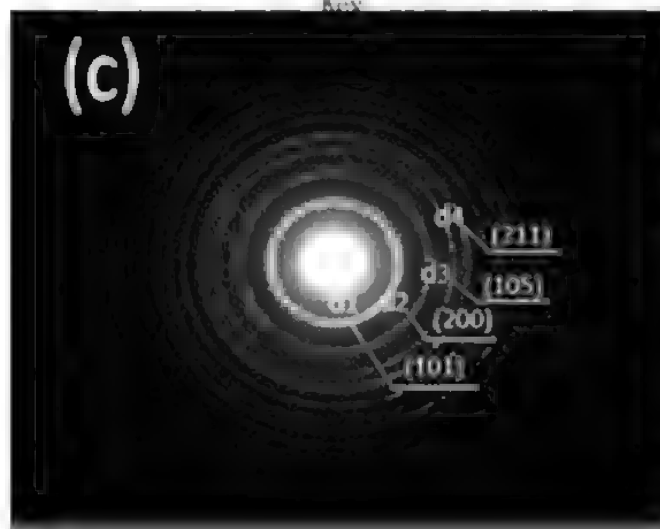
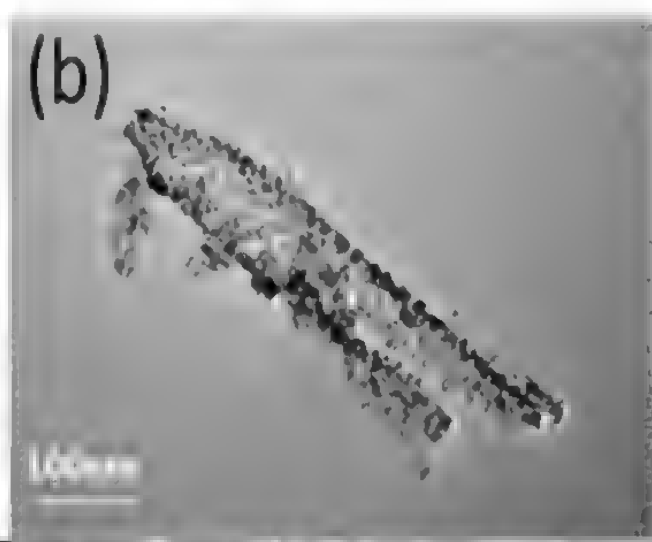
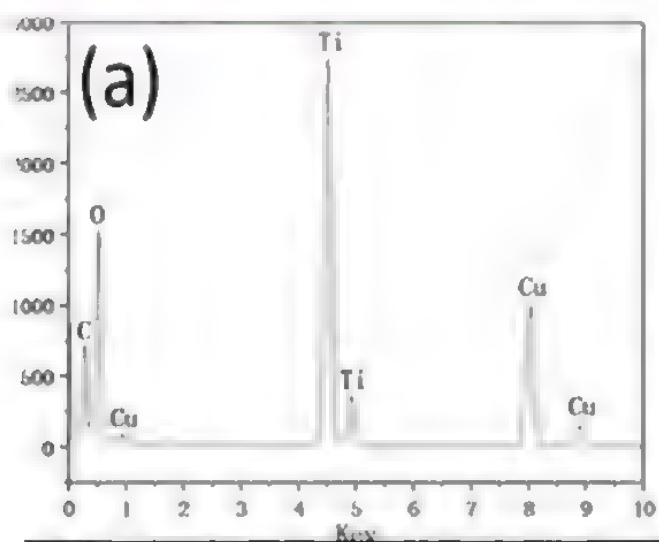
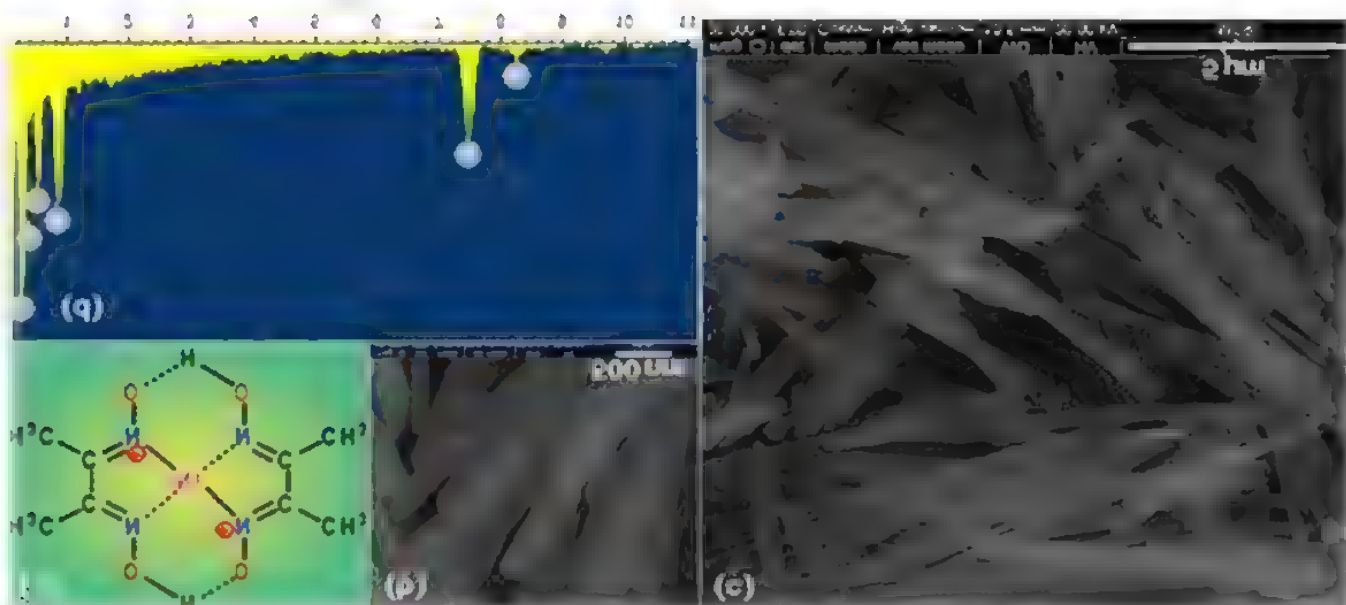




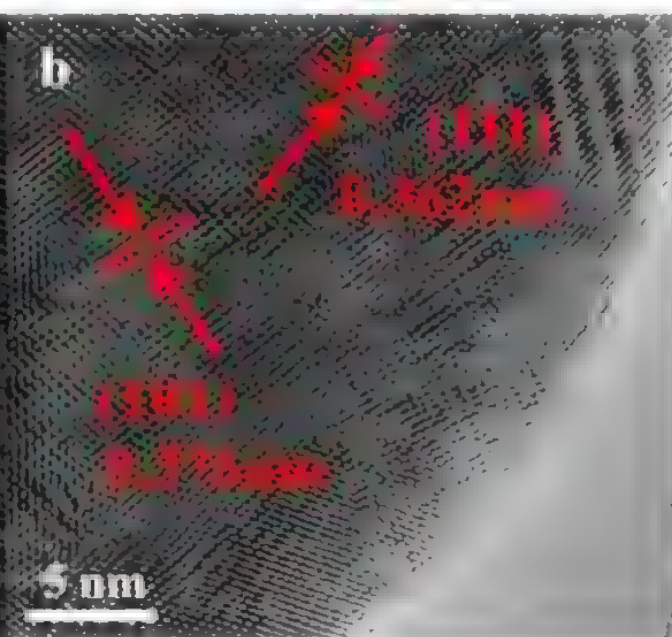
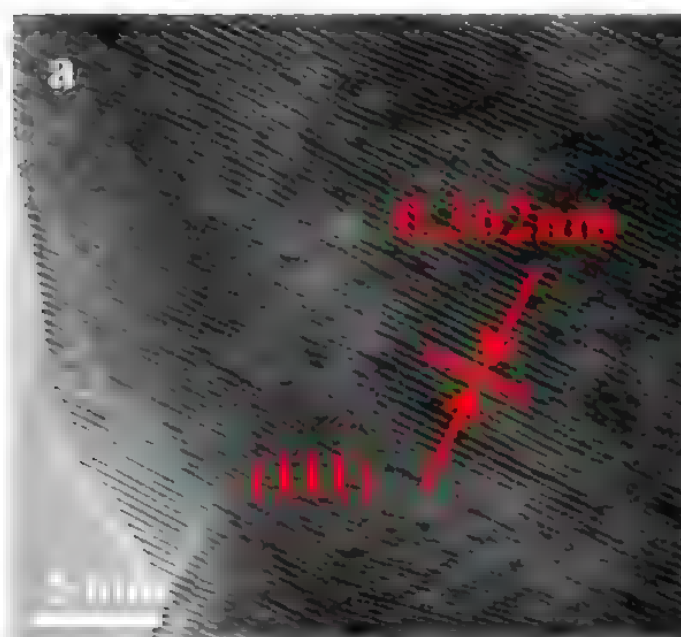
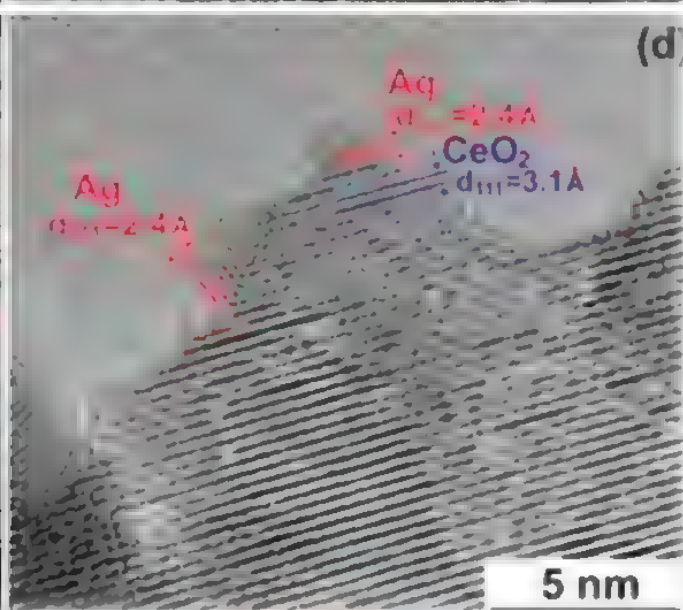
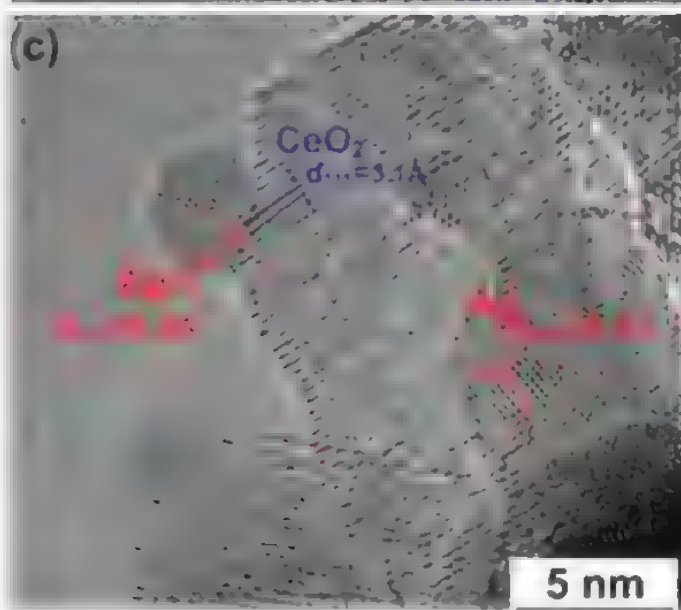
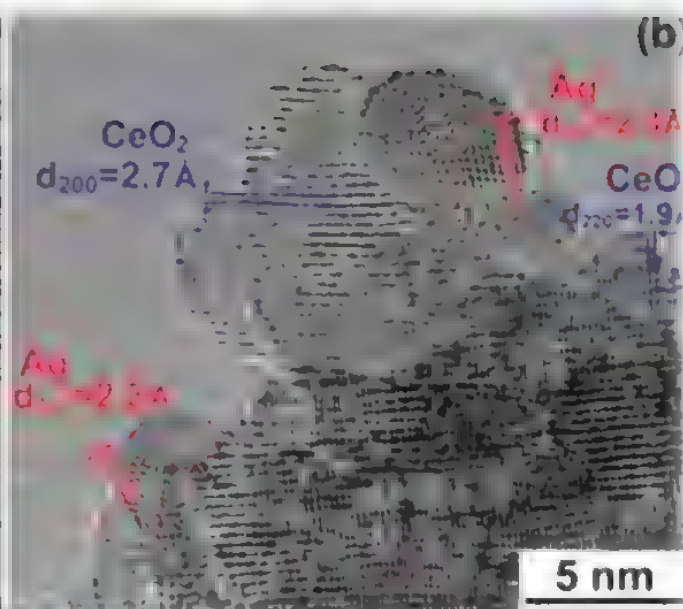
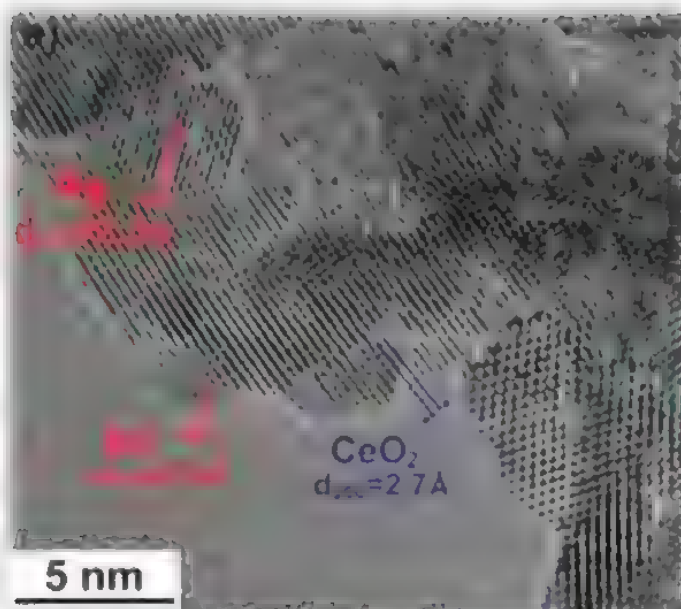


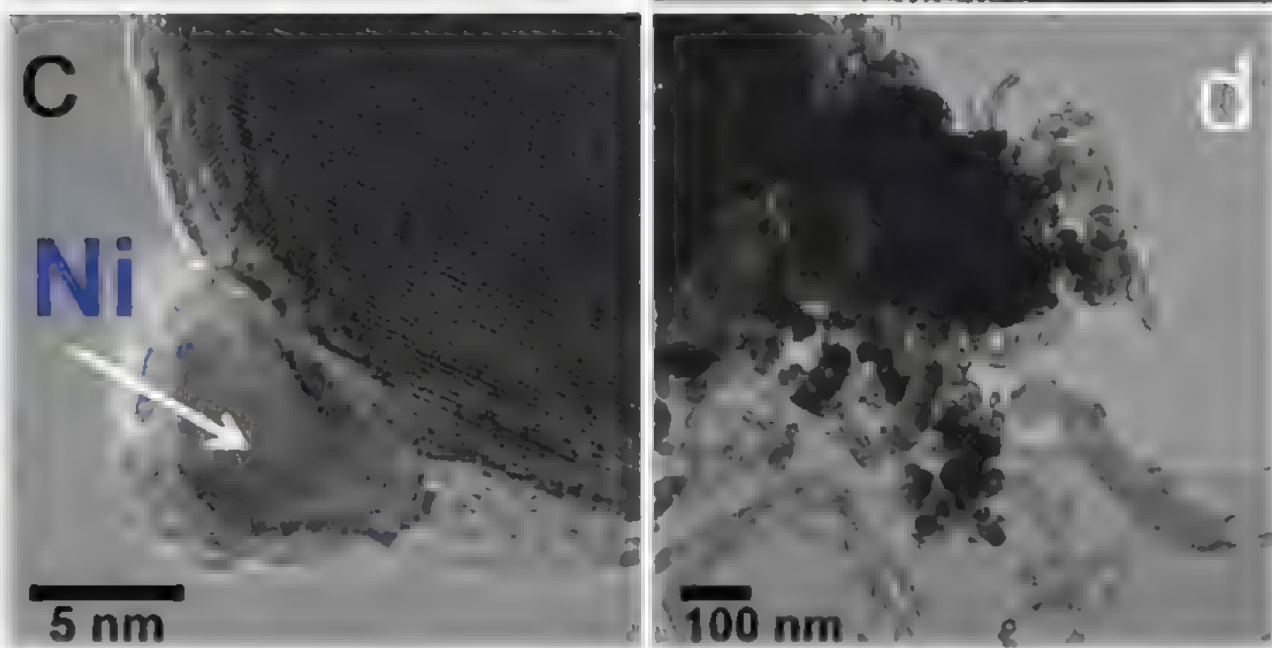
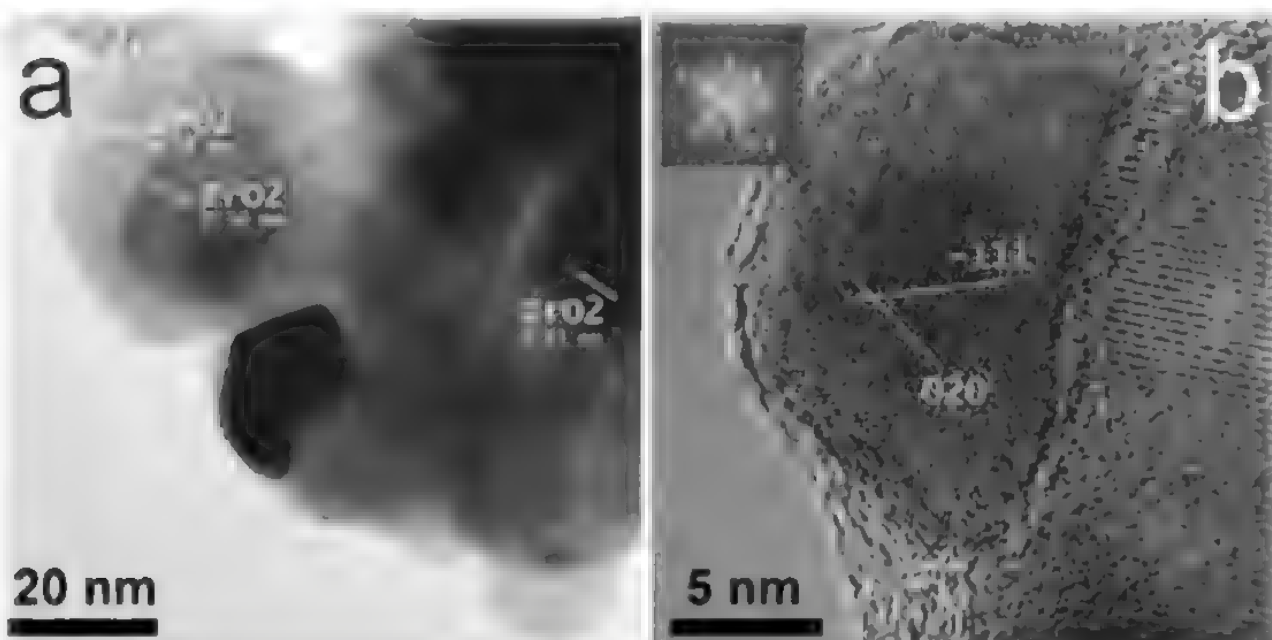
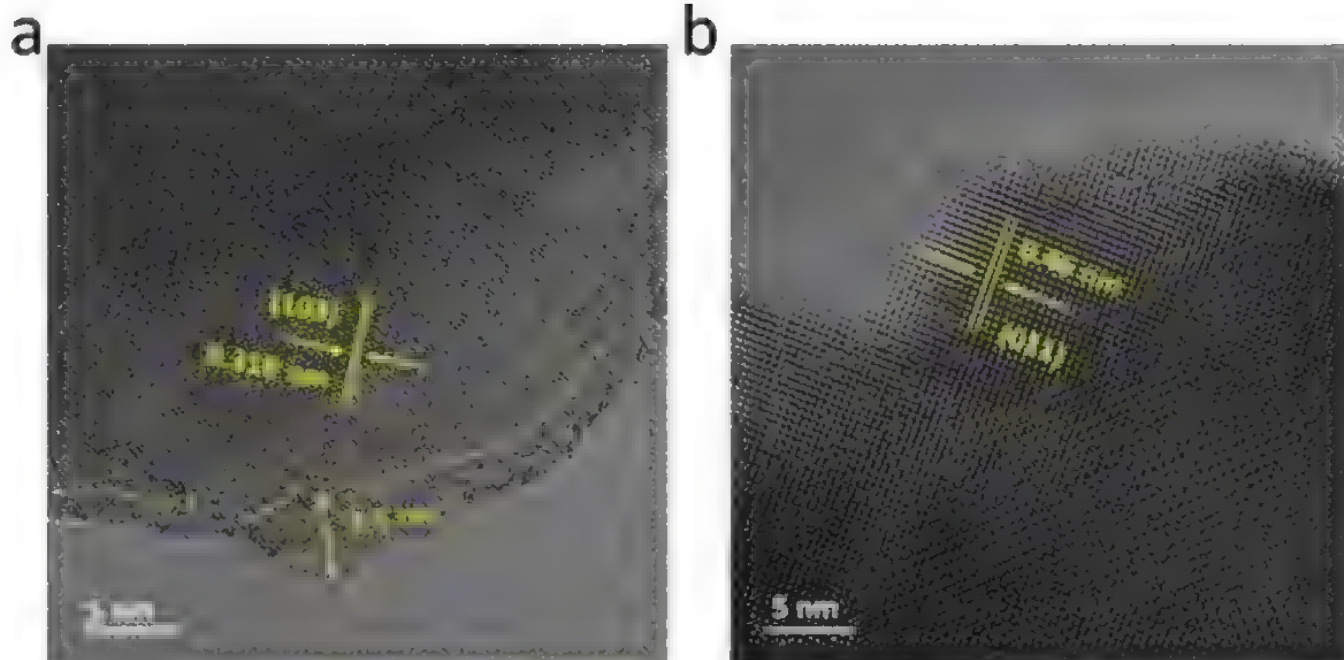


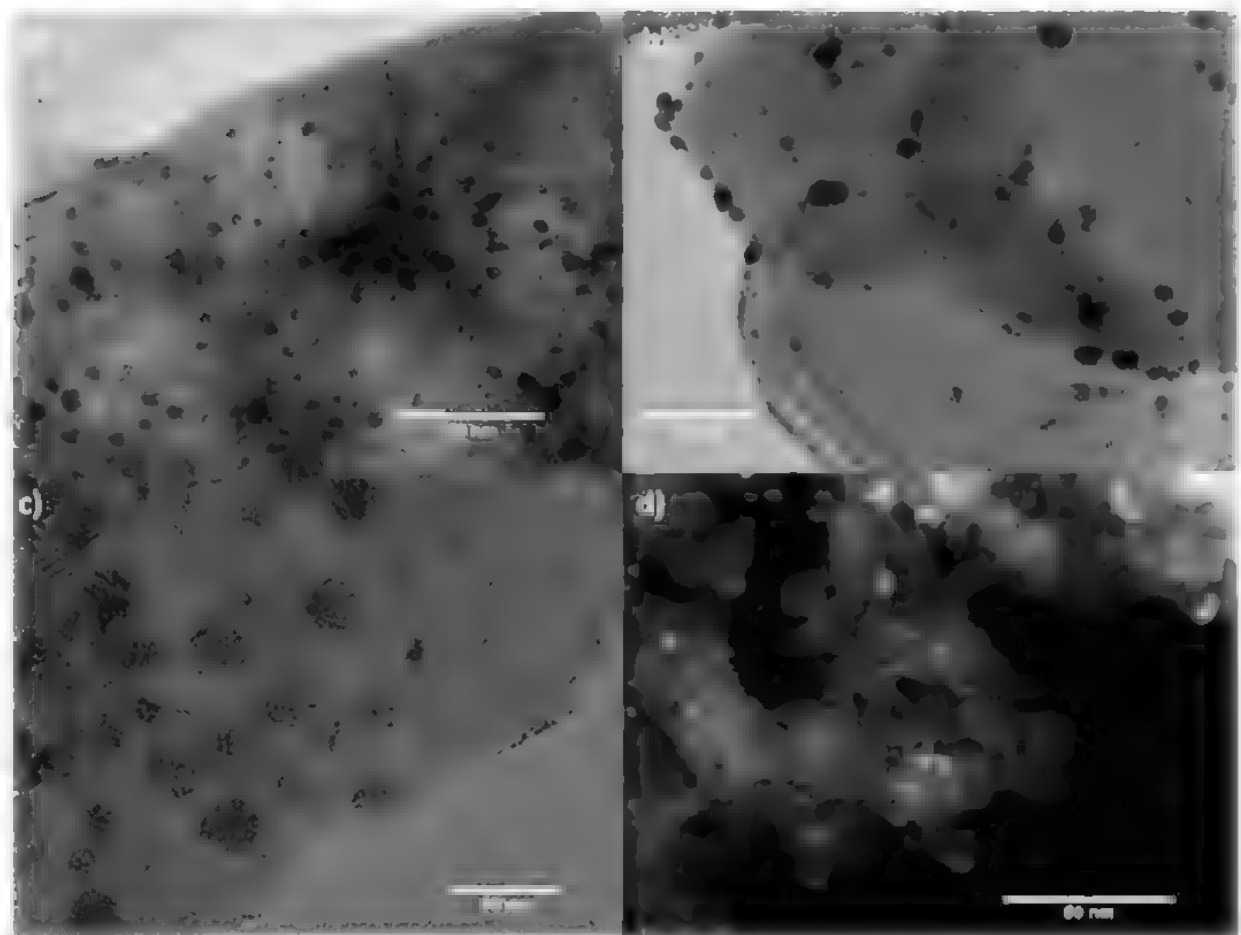
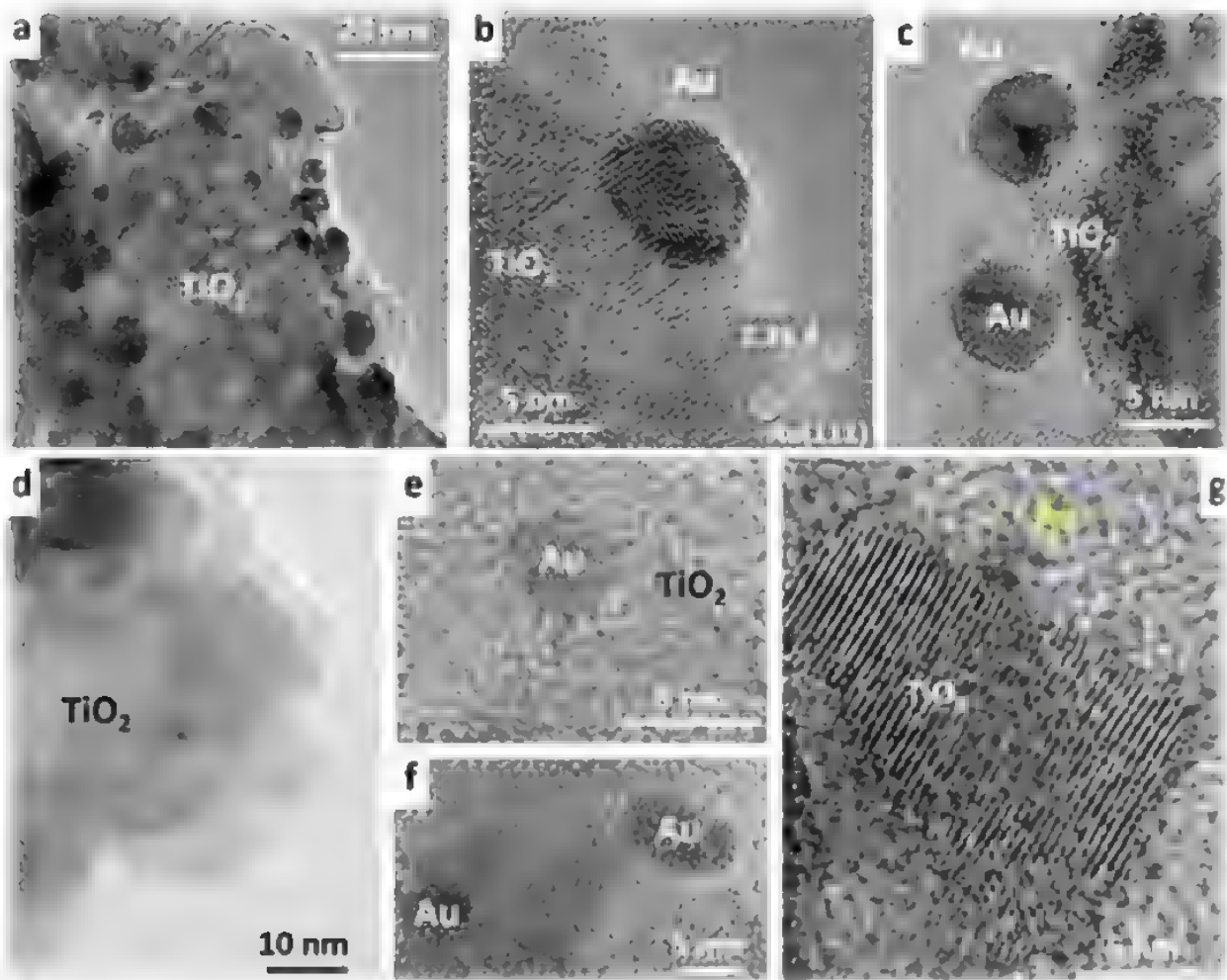




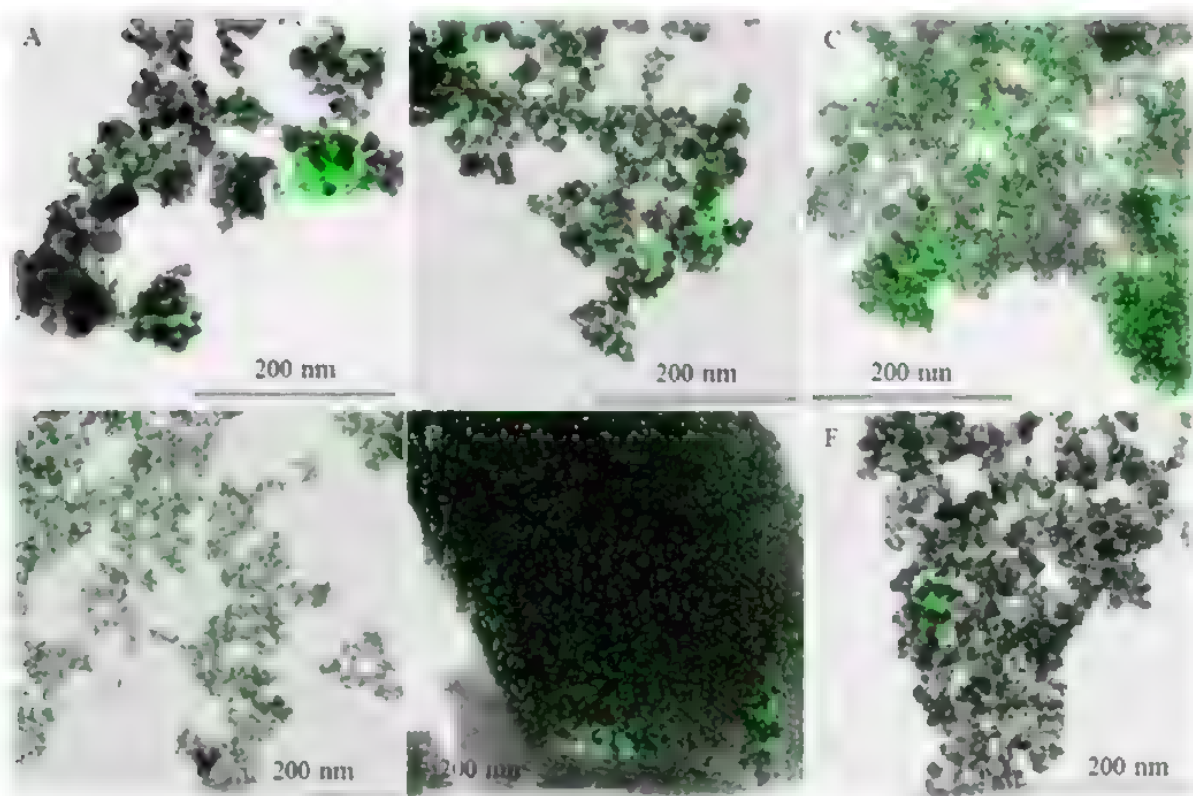
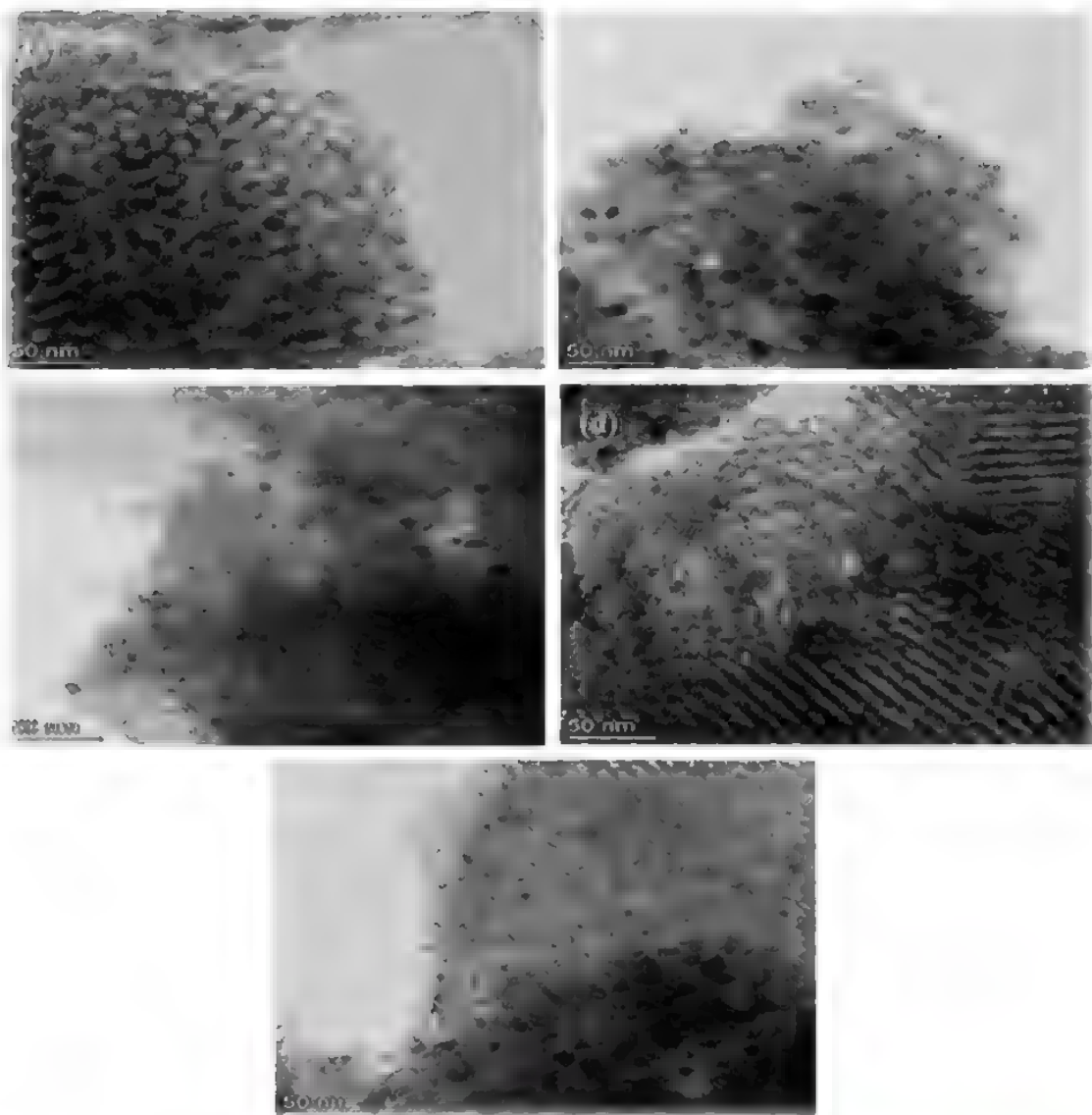




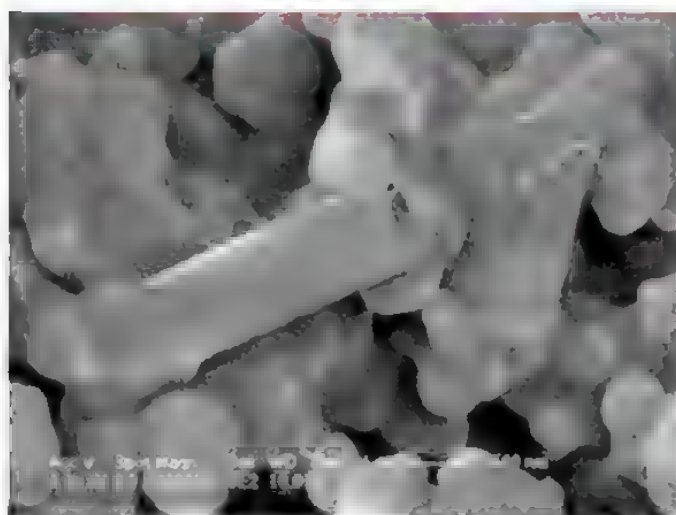
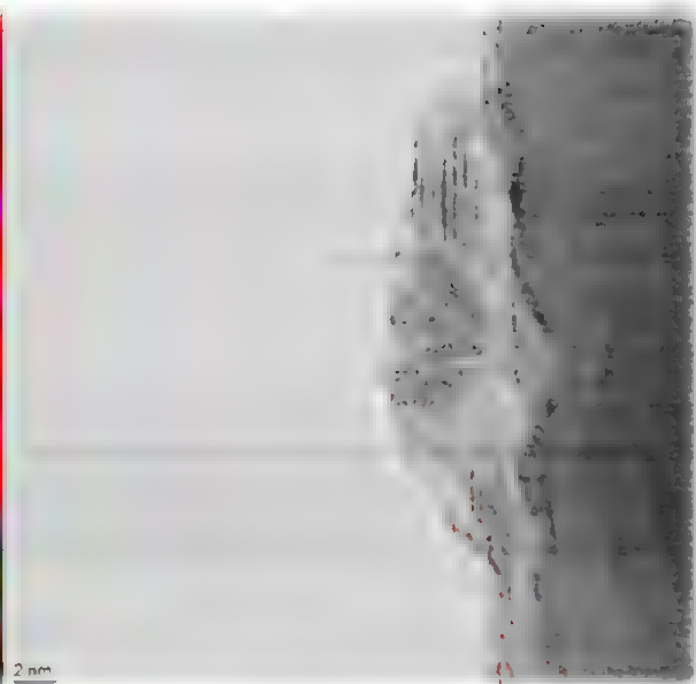
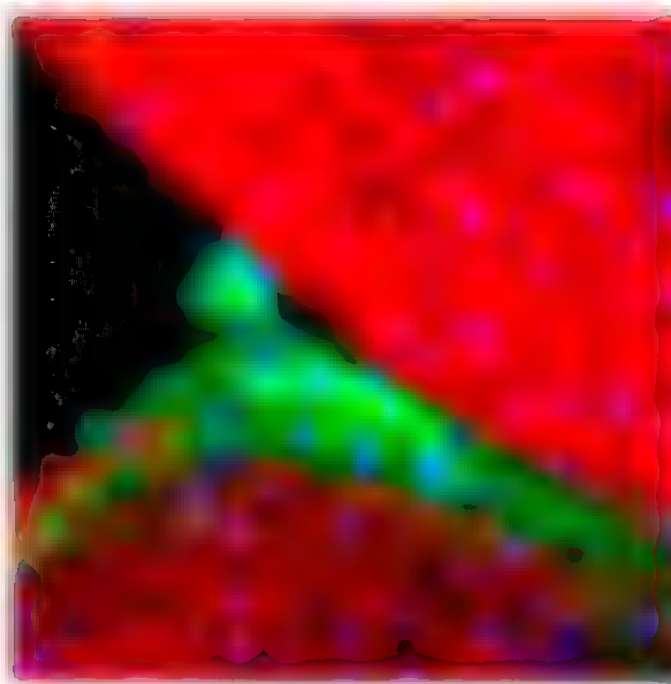












(a)



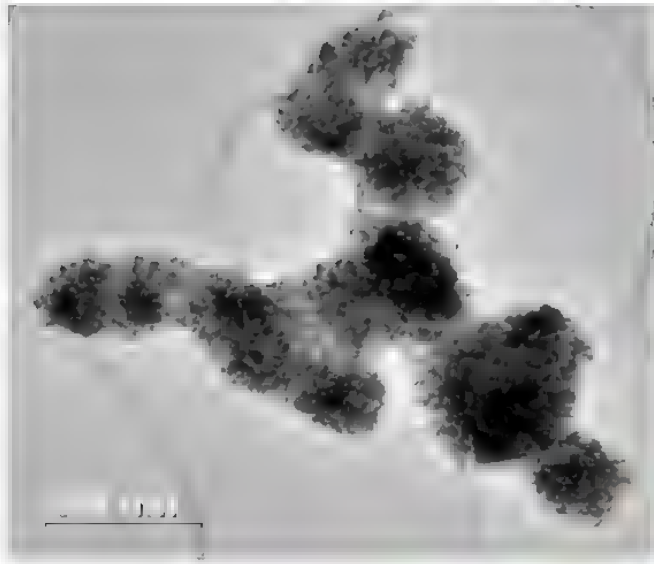
(b)



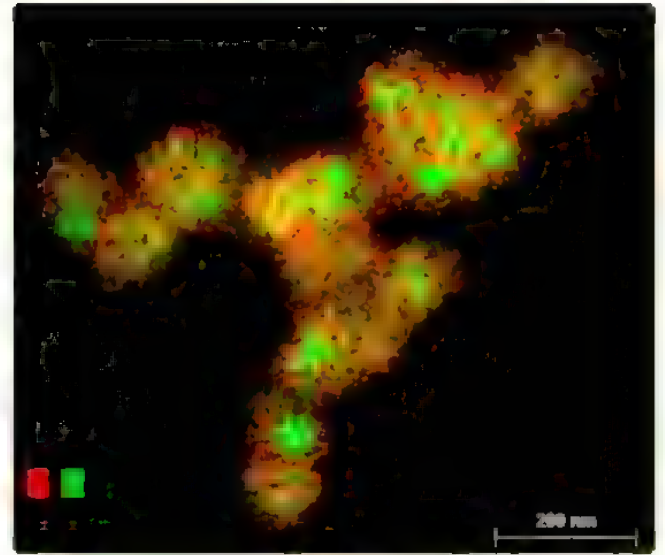
(c)



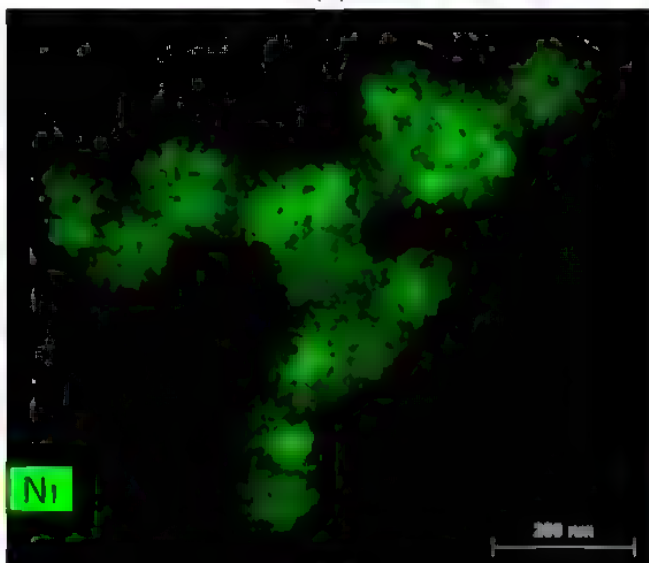
(d)



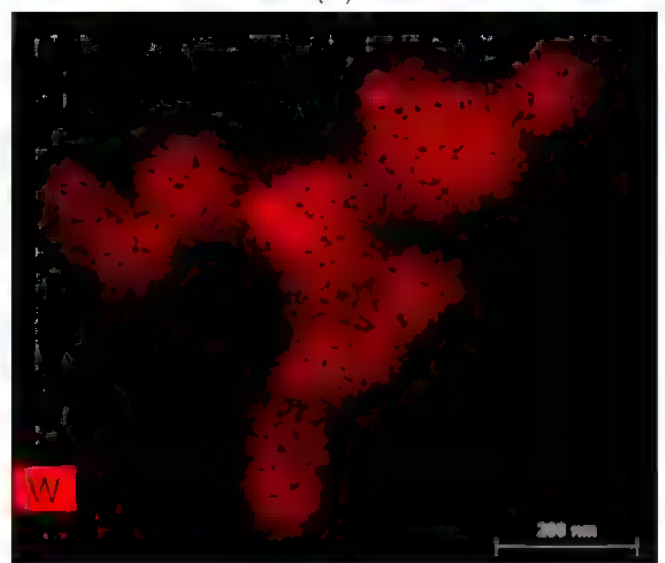
(a)



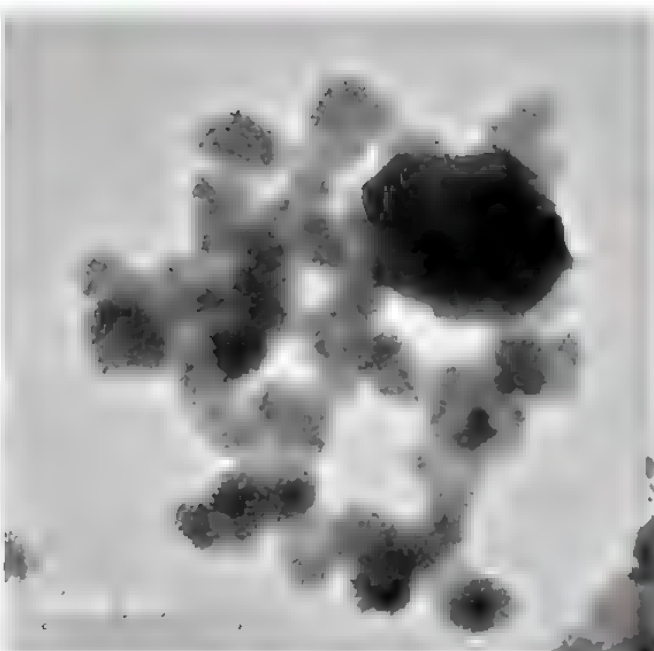
(b)



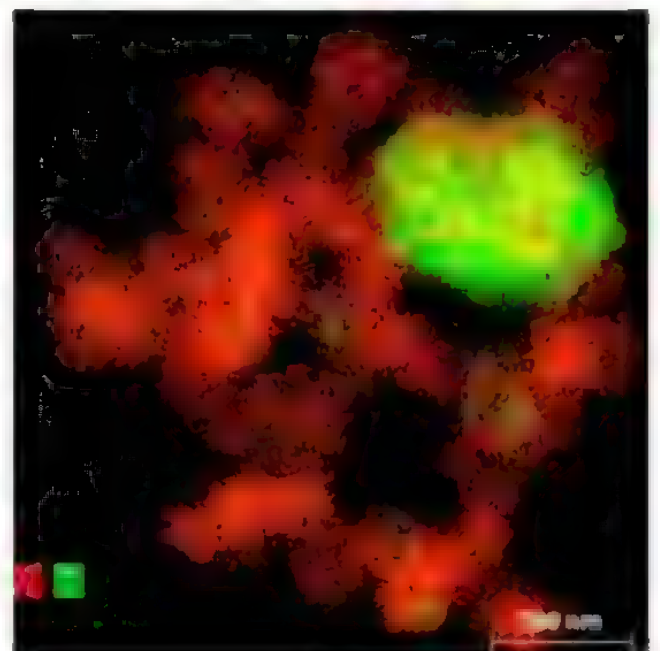
(c)



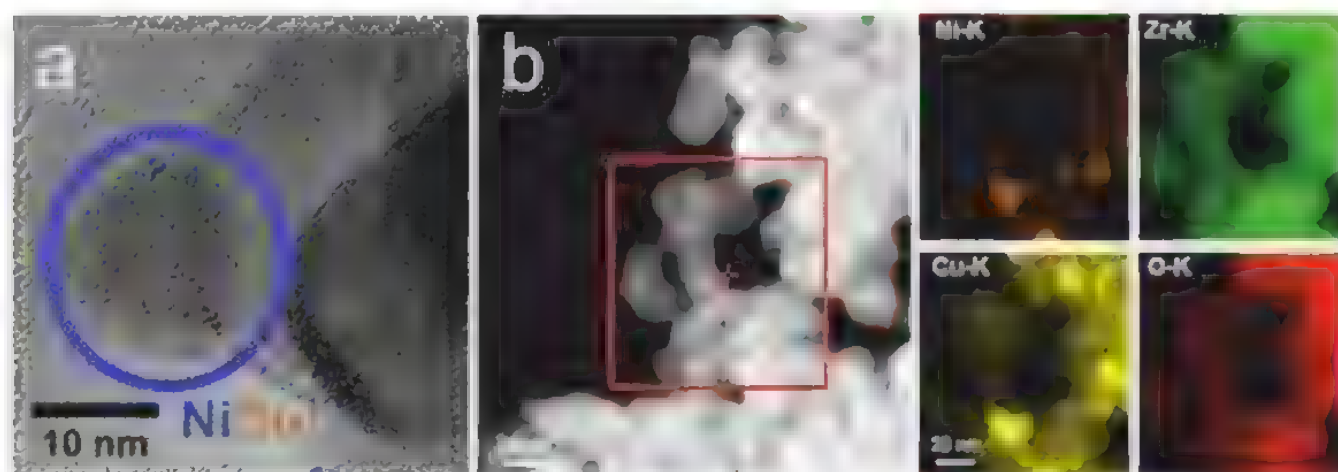
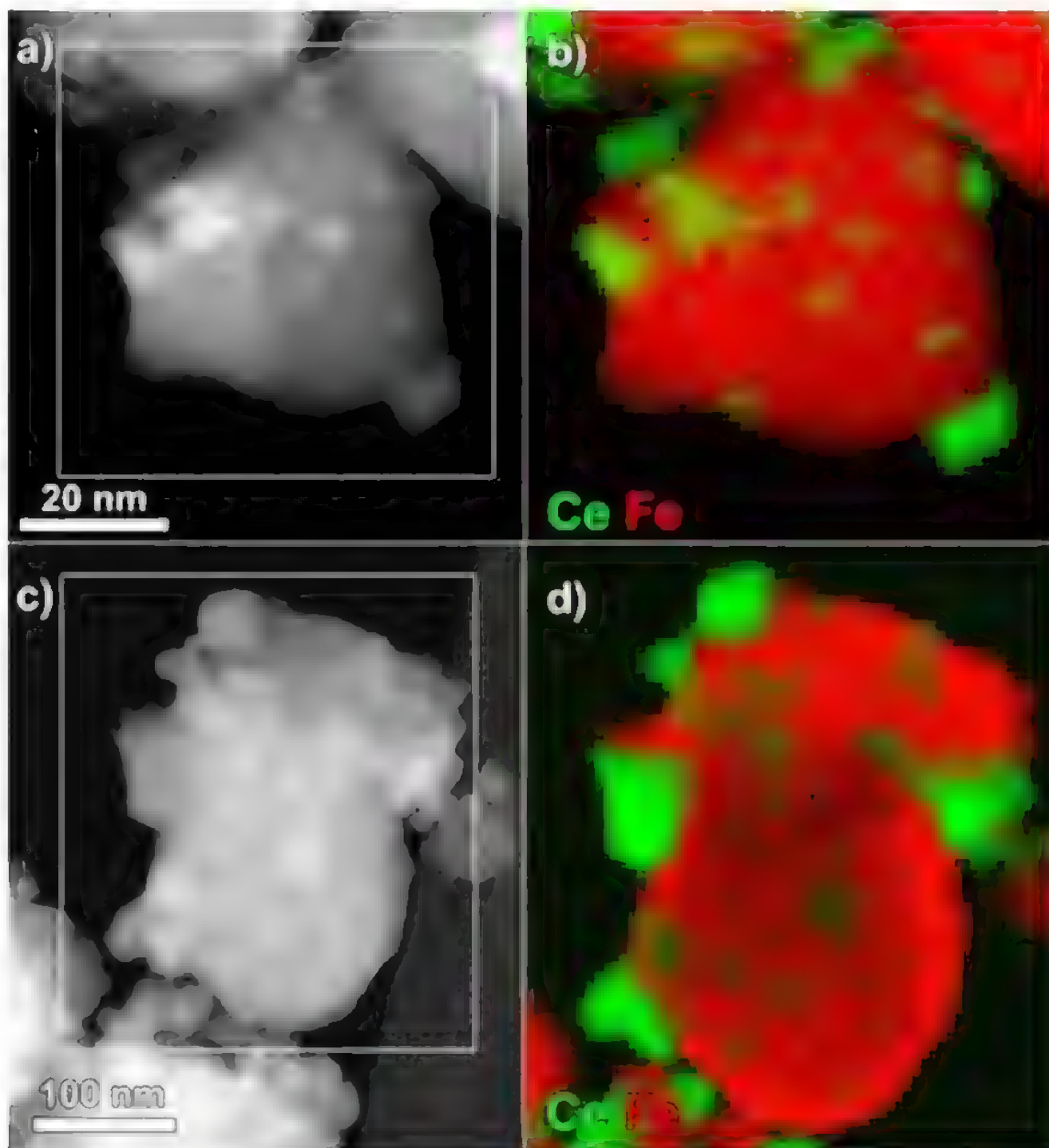
(d)

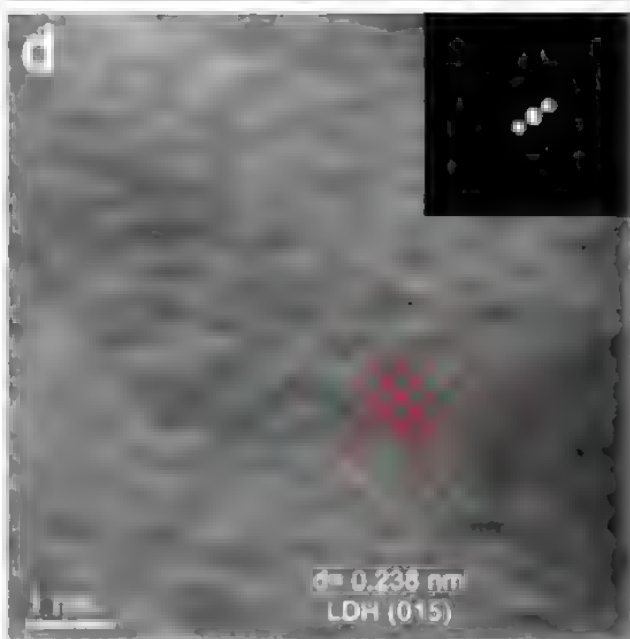
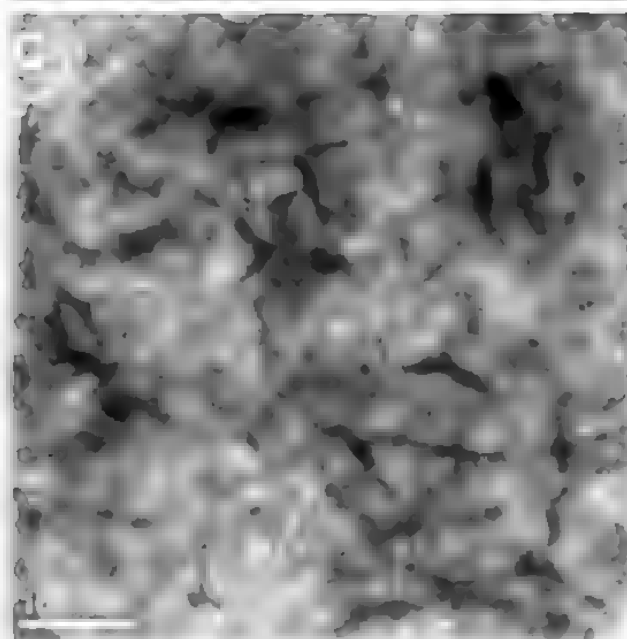
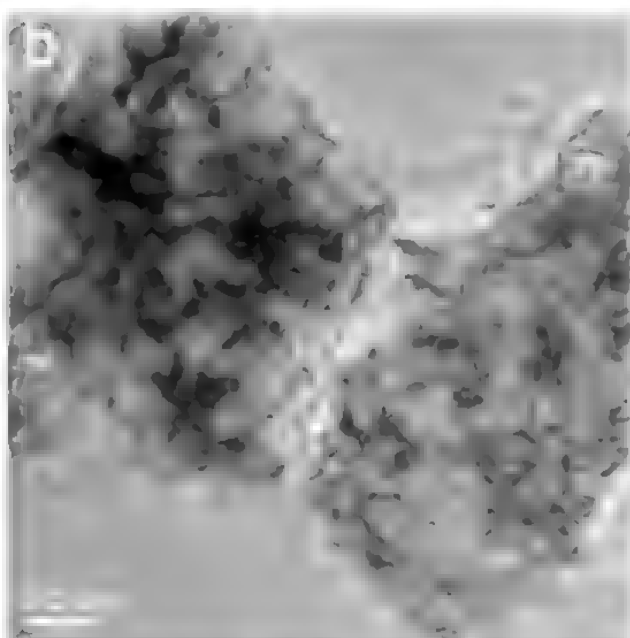
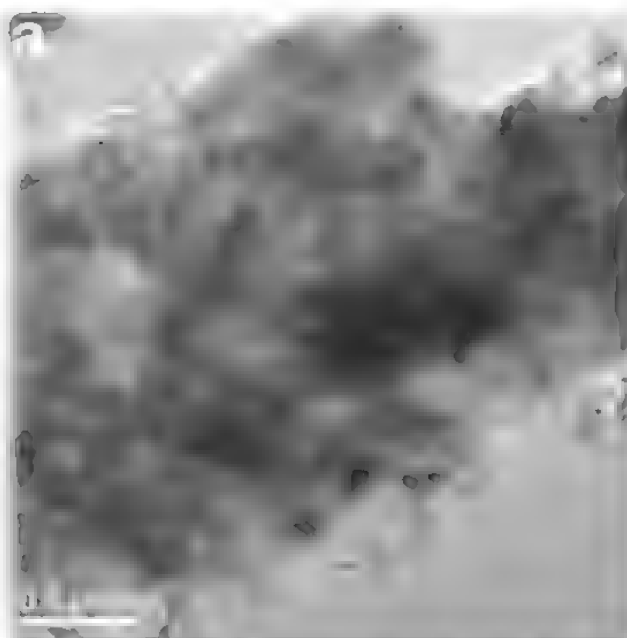
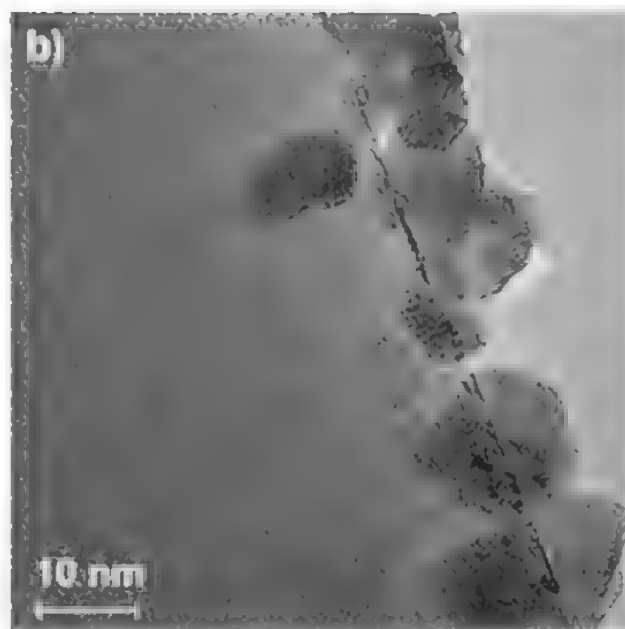
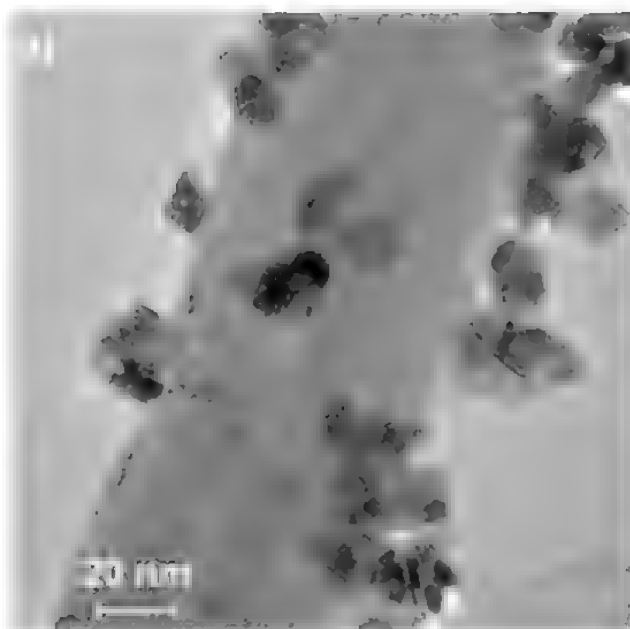


(a)

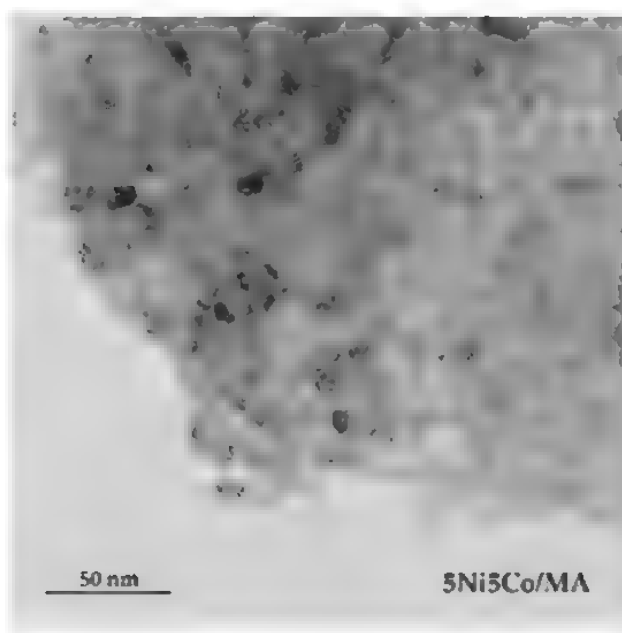
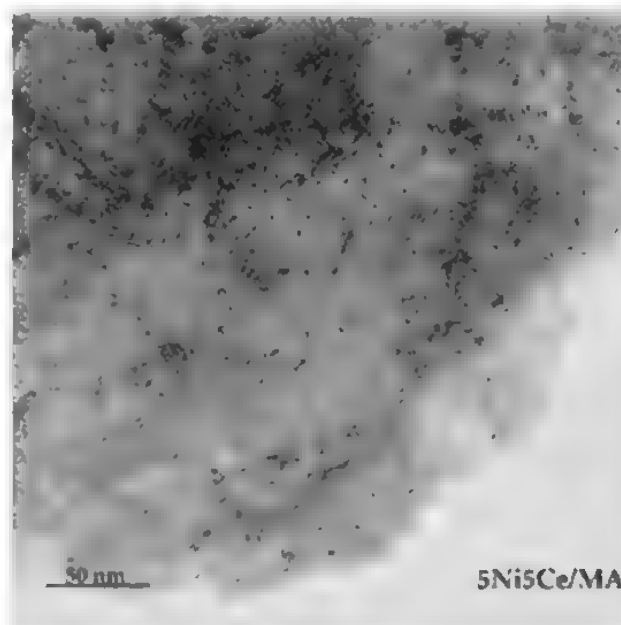
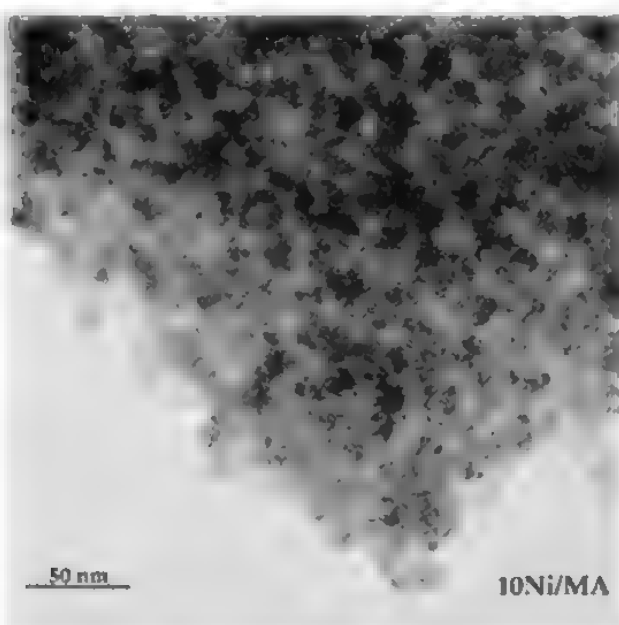
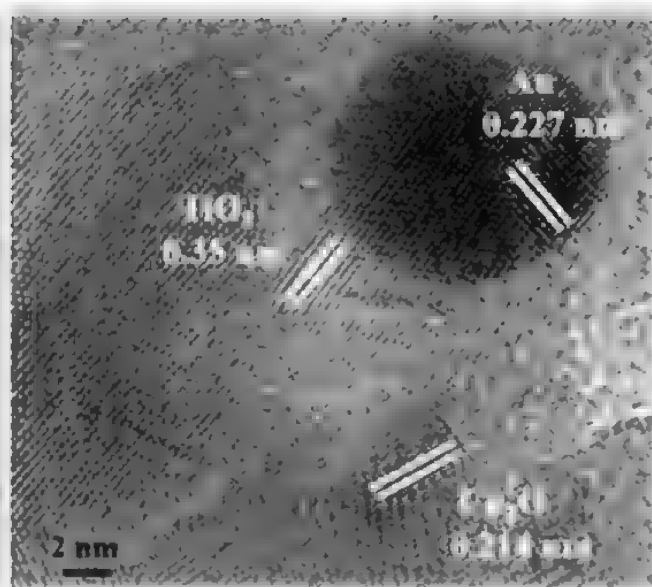
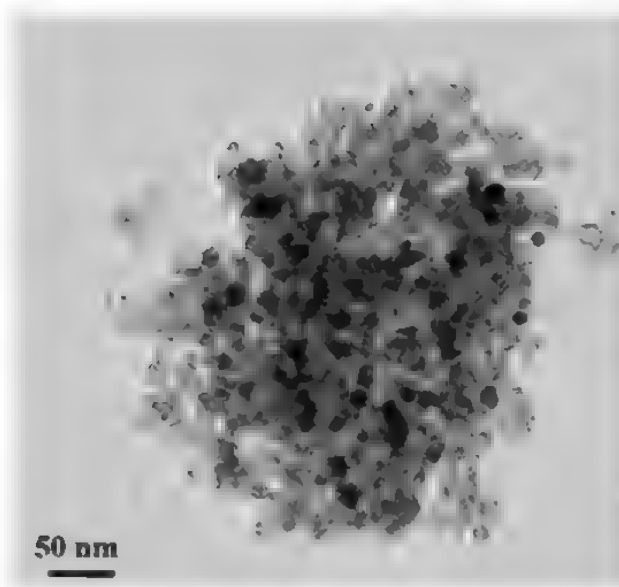


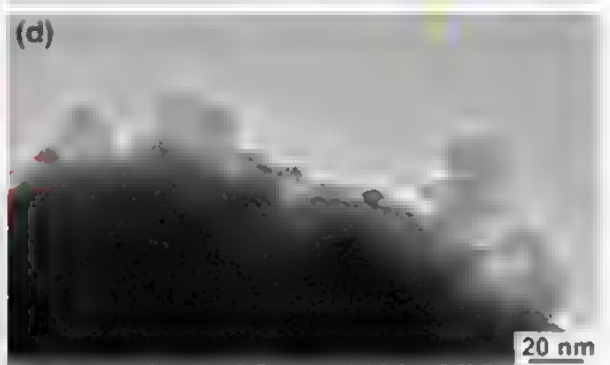
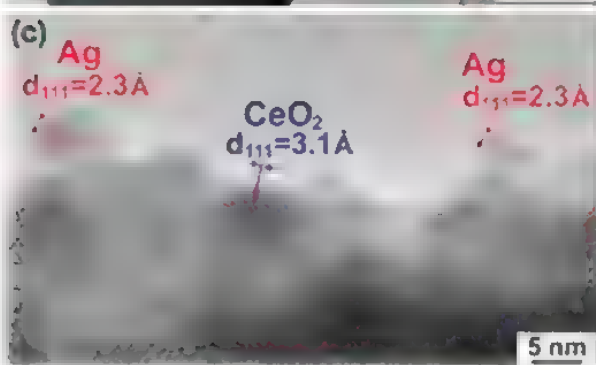
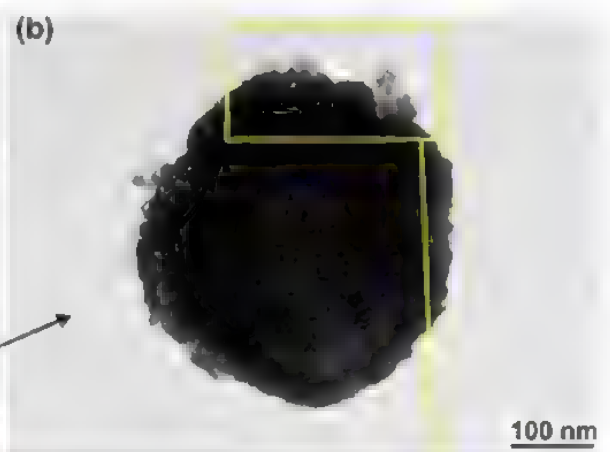
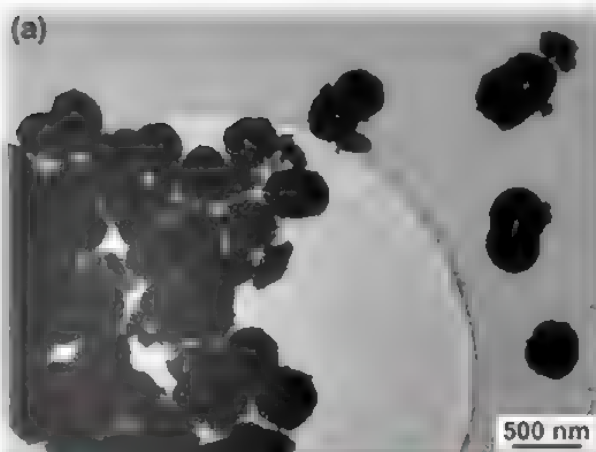
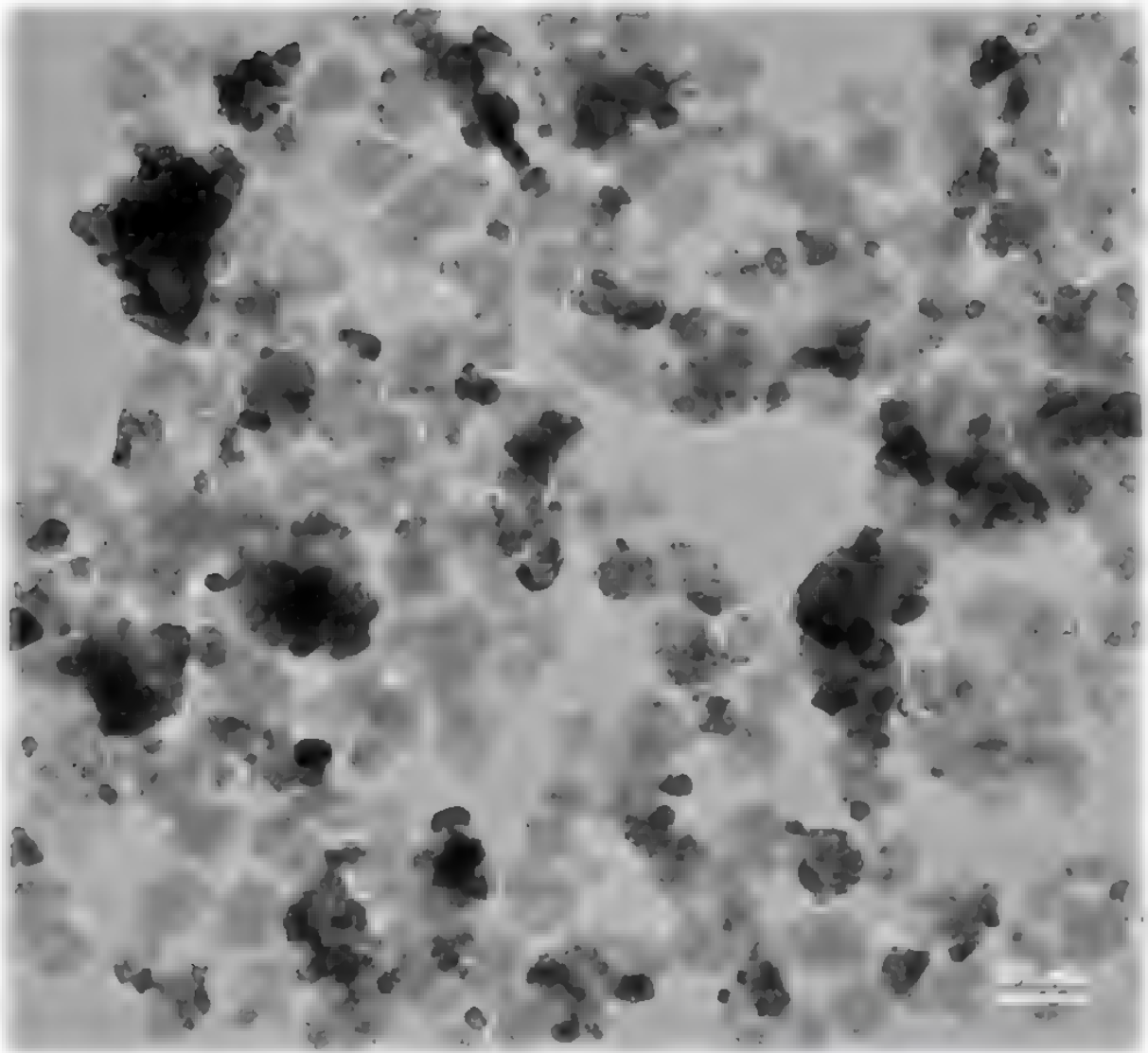
(b)

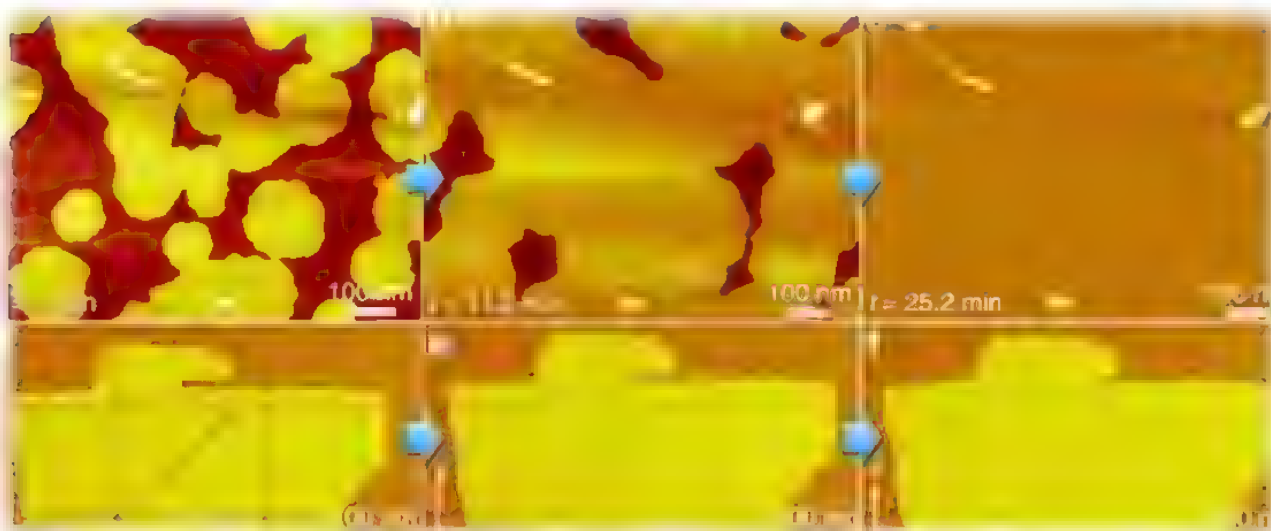
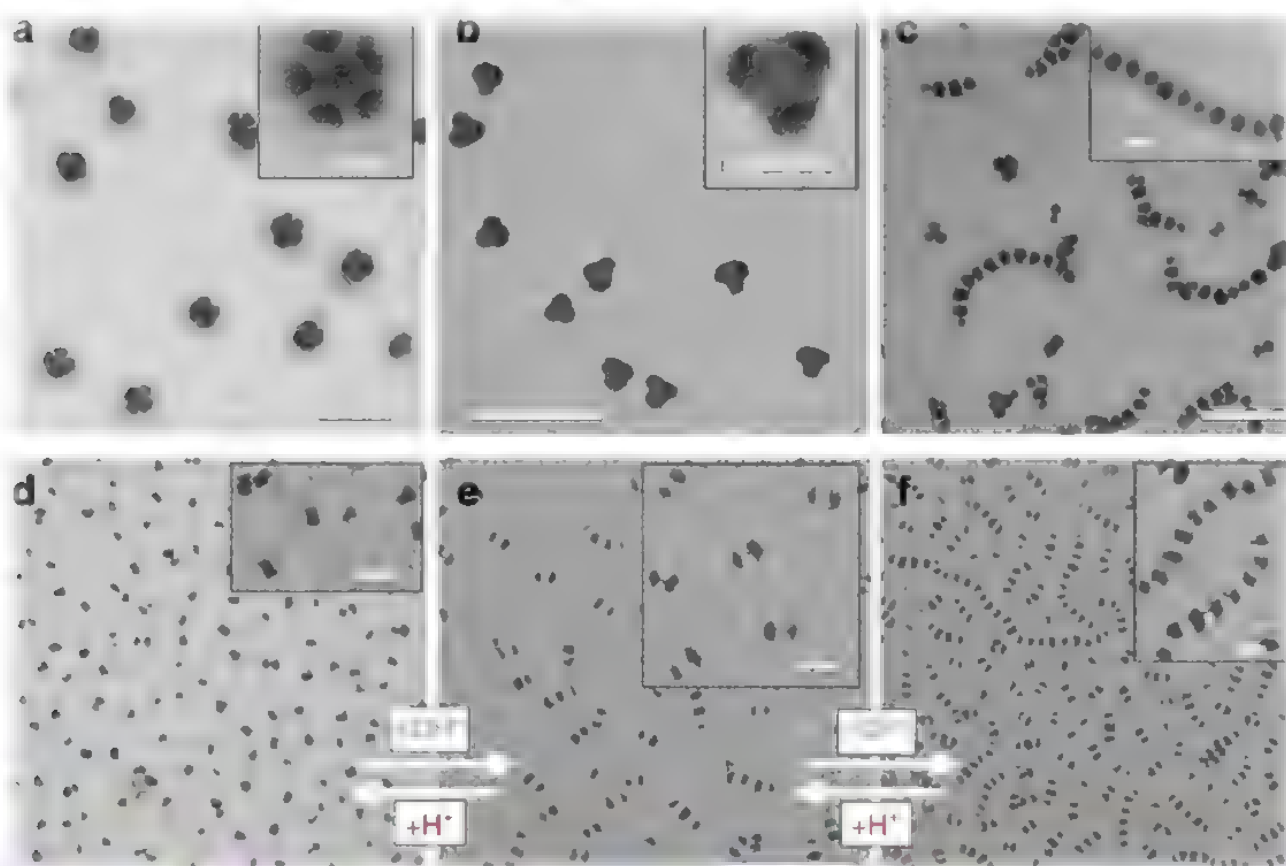
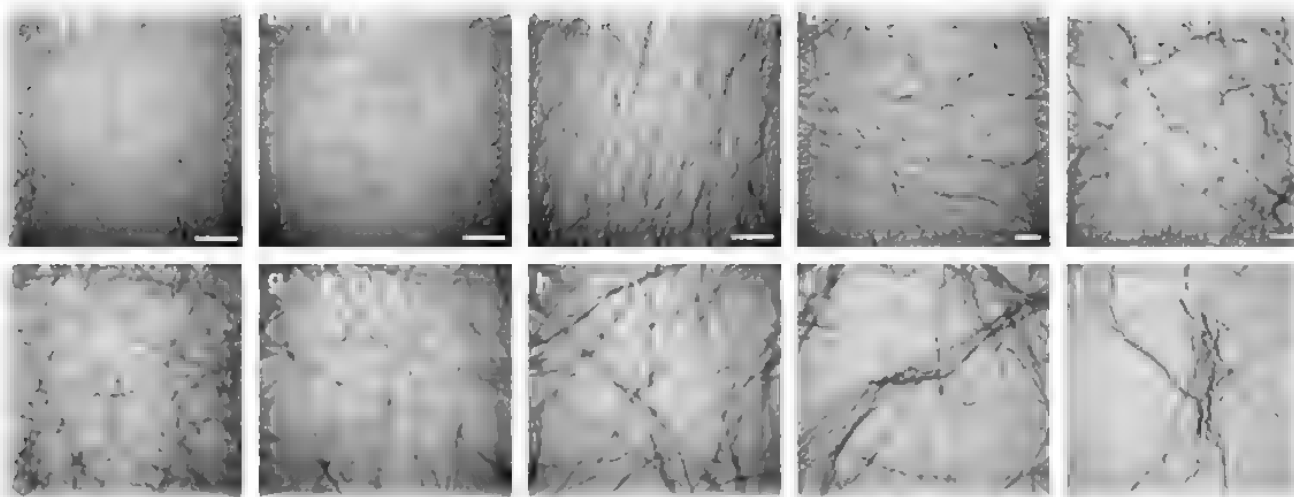


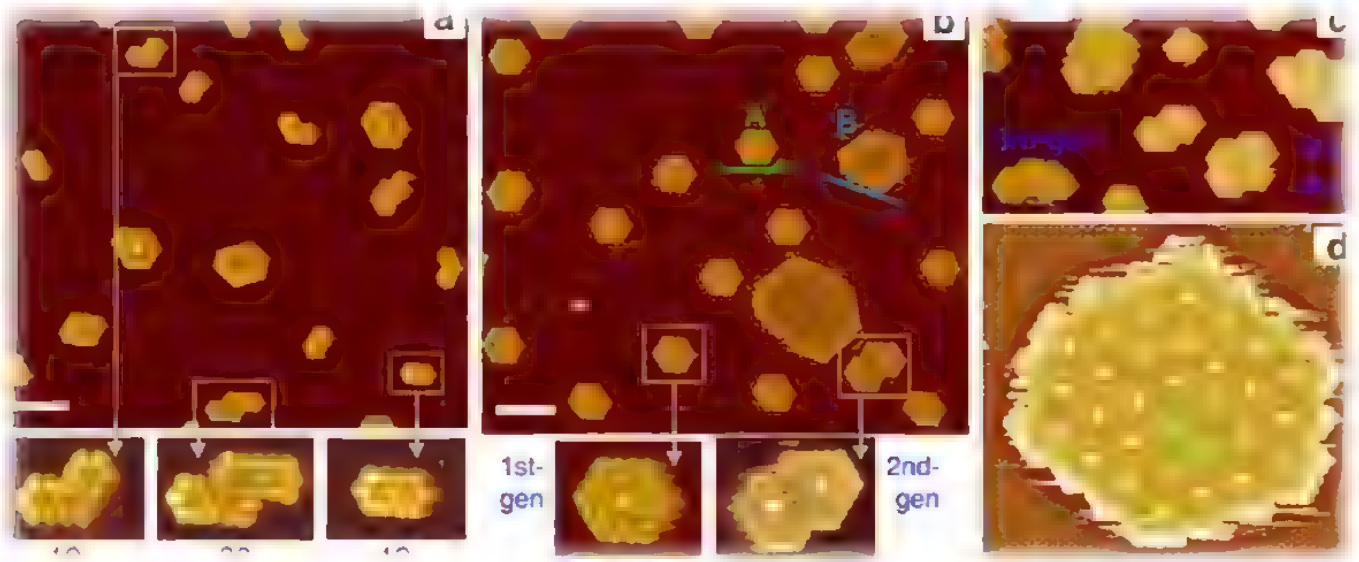
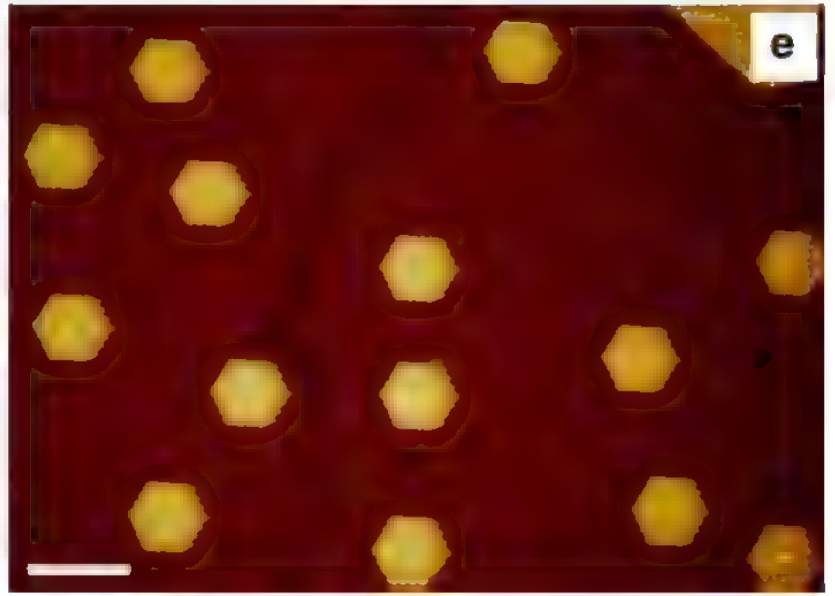
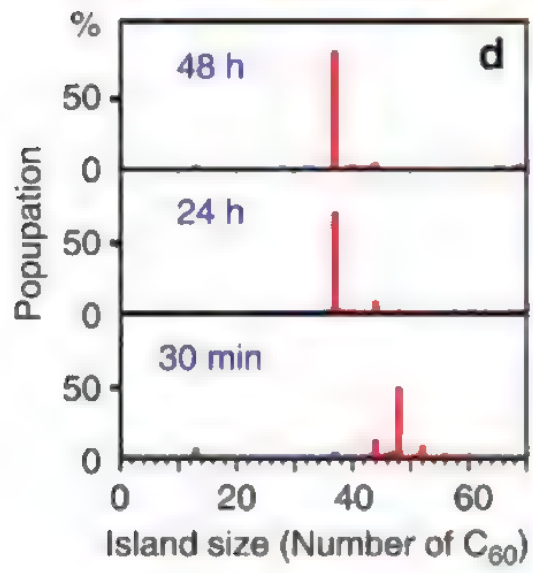
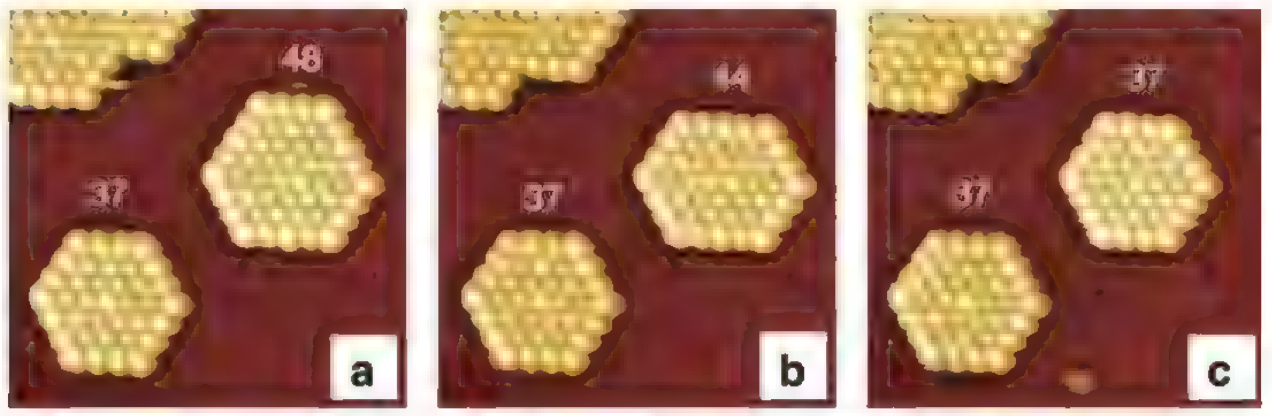
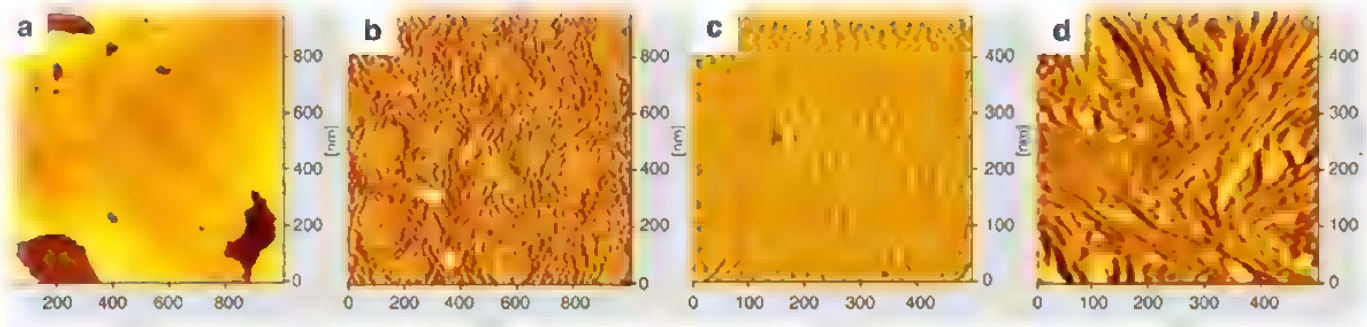




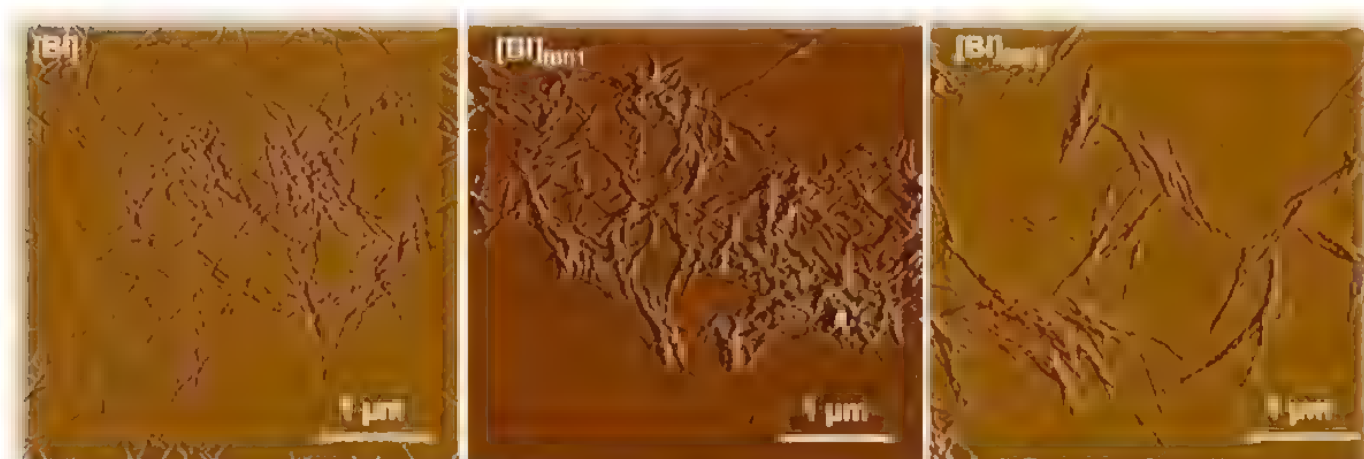
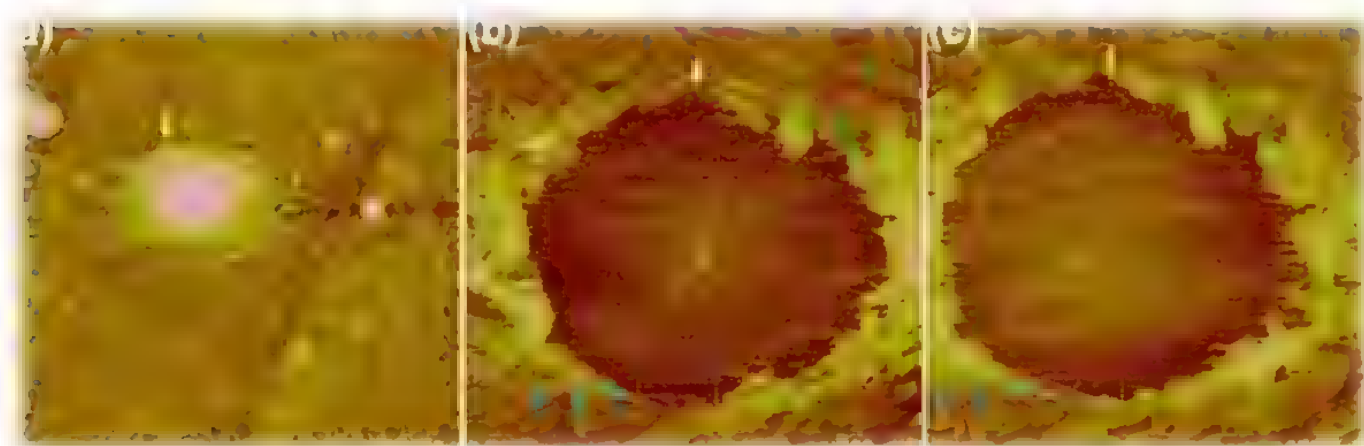
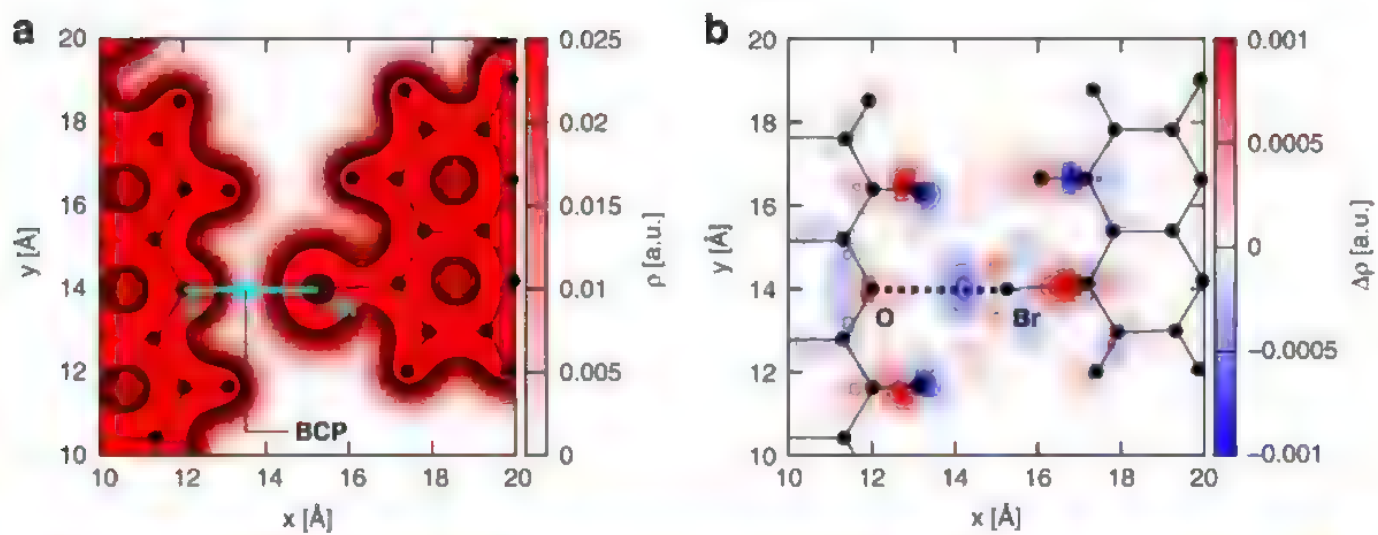


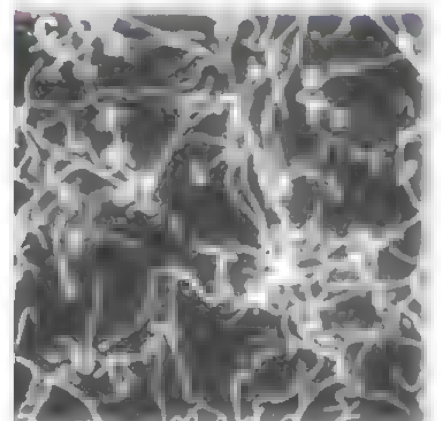
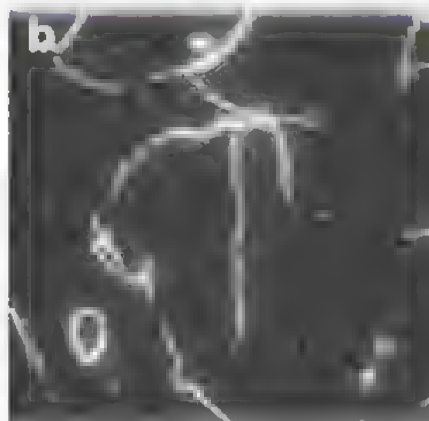
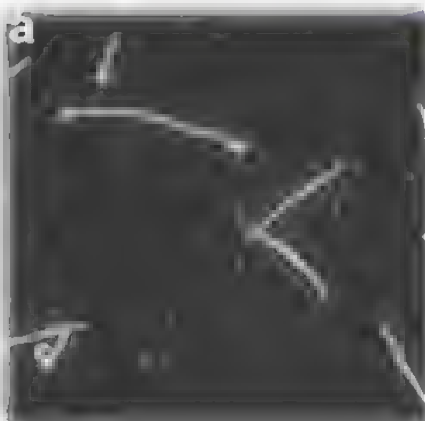
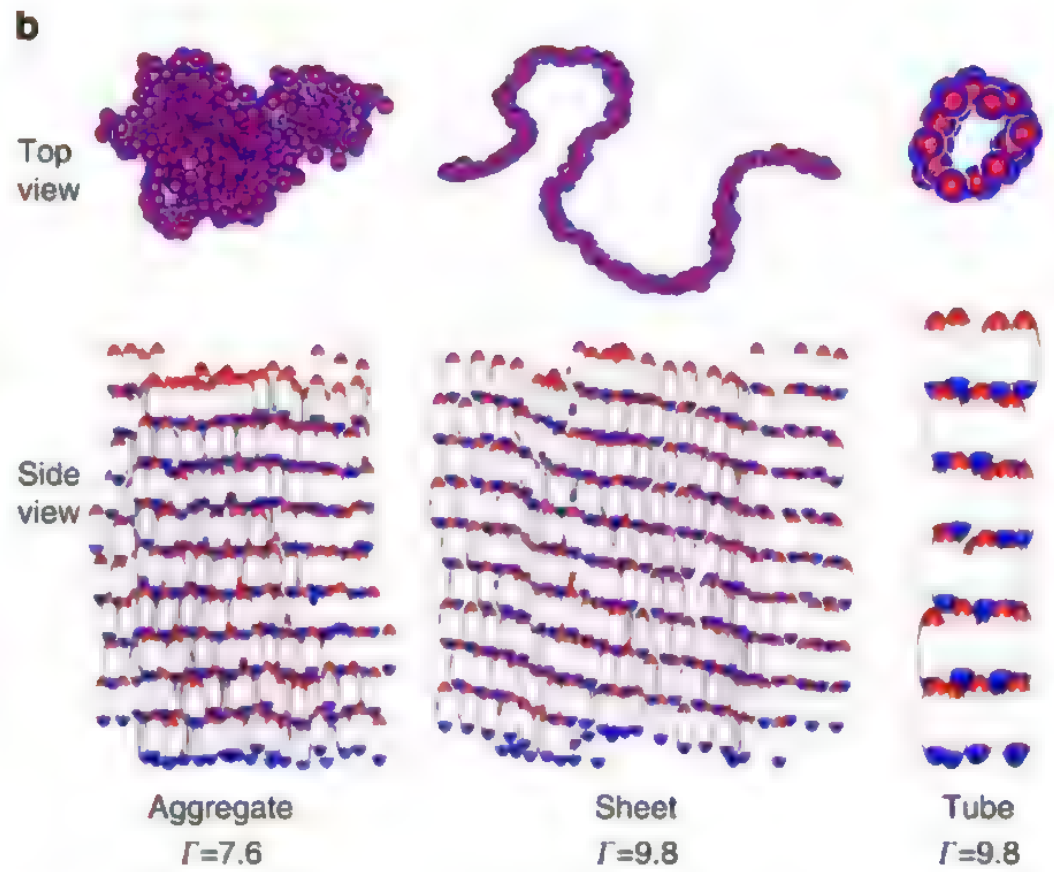
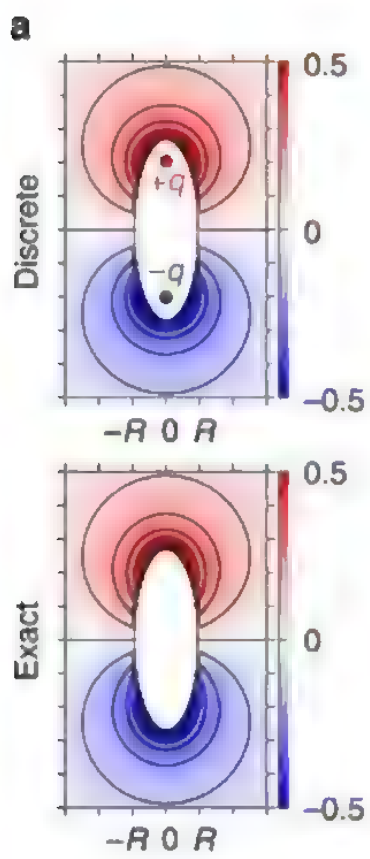
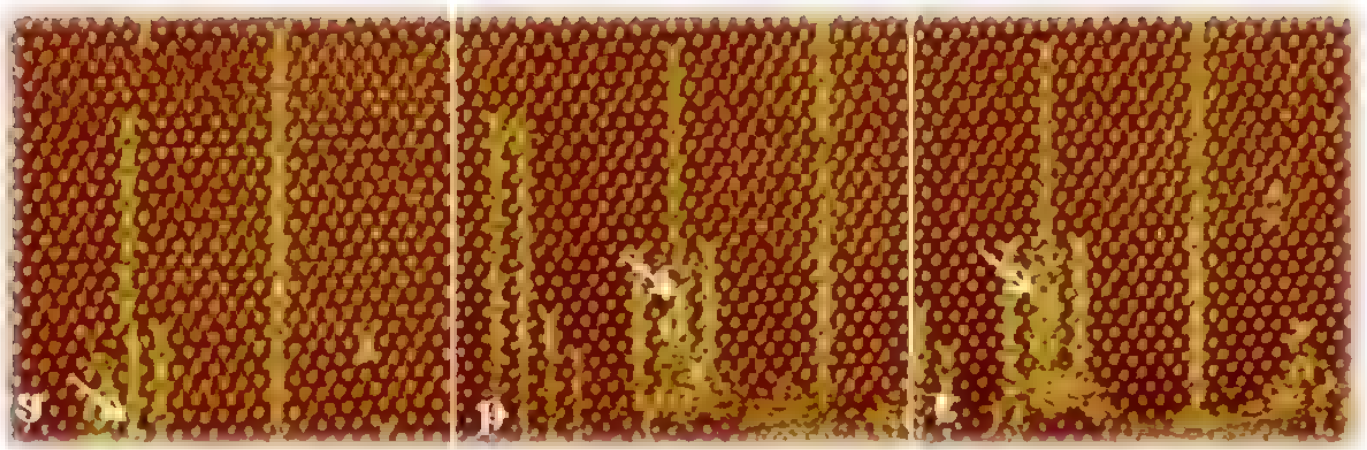


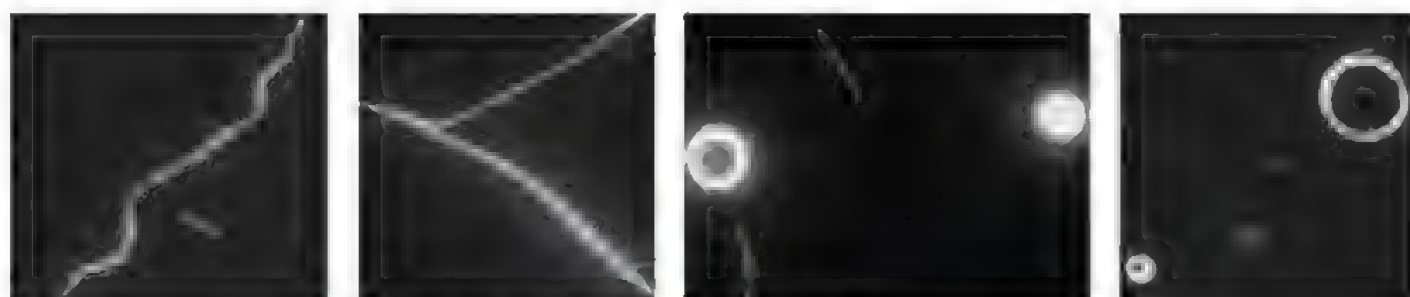










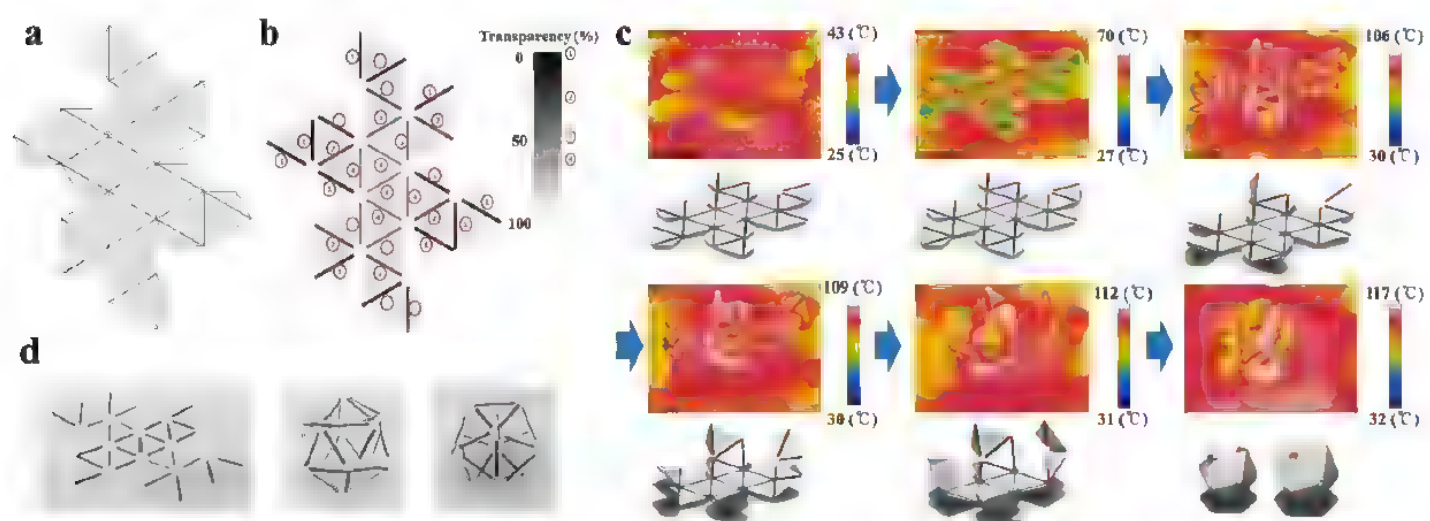
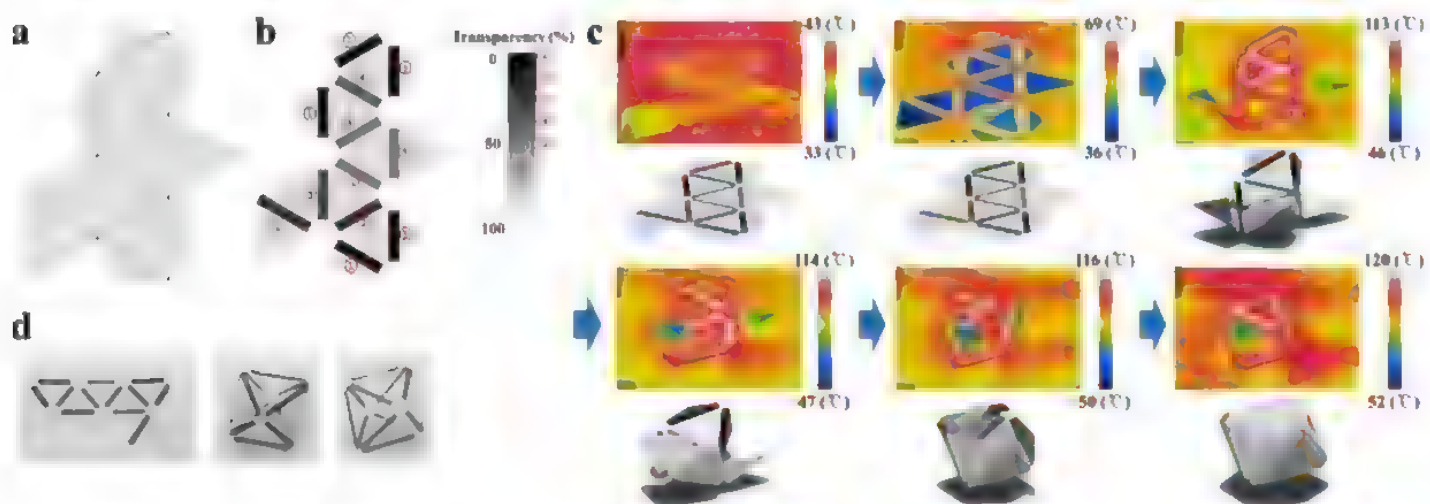
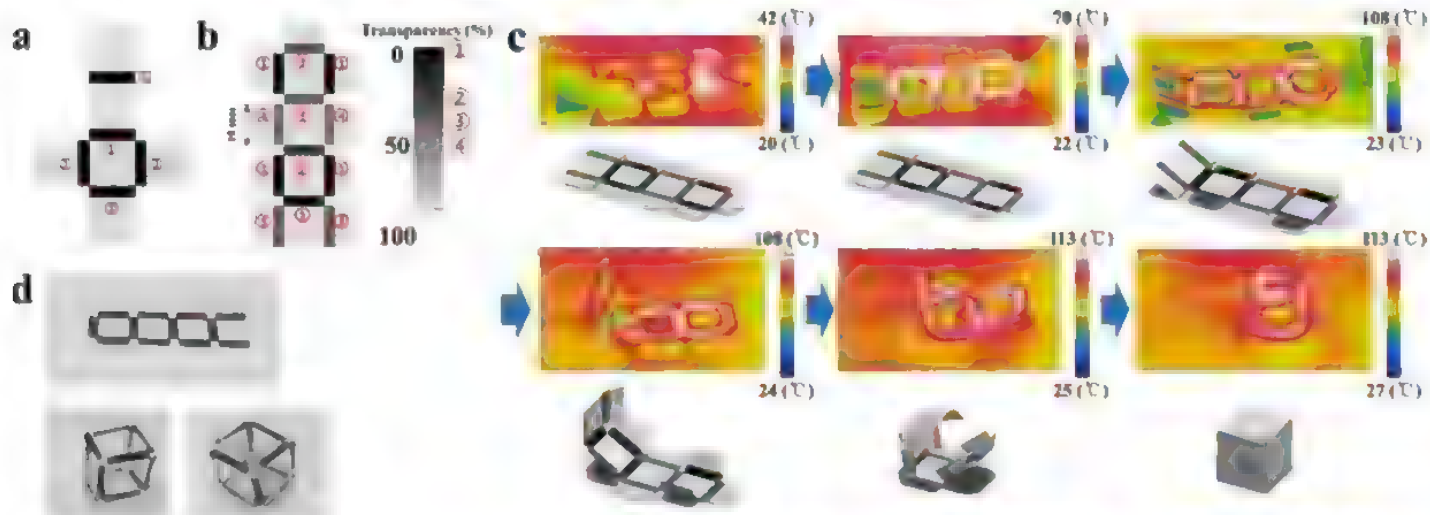


60 min

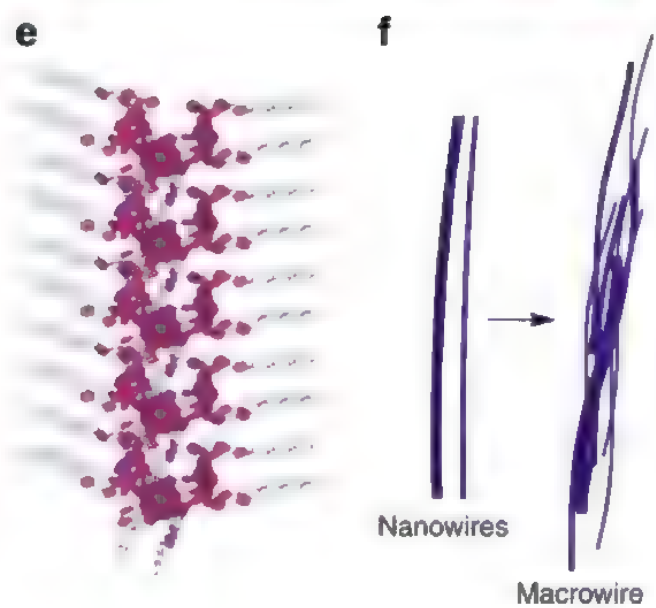
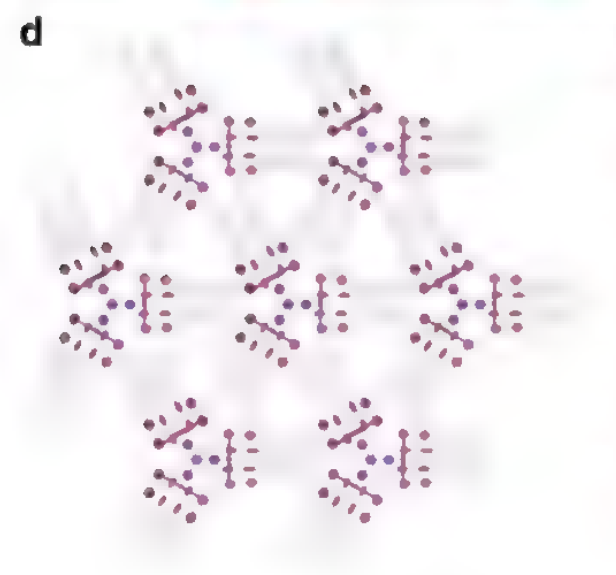
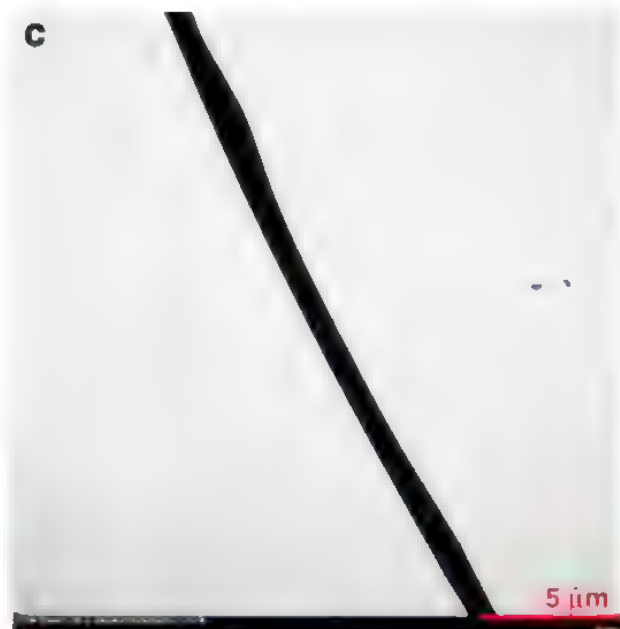
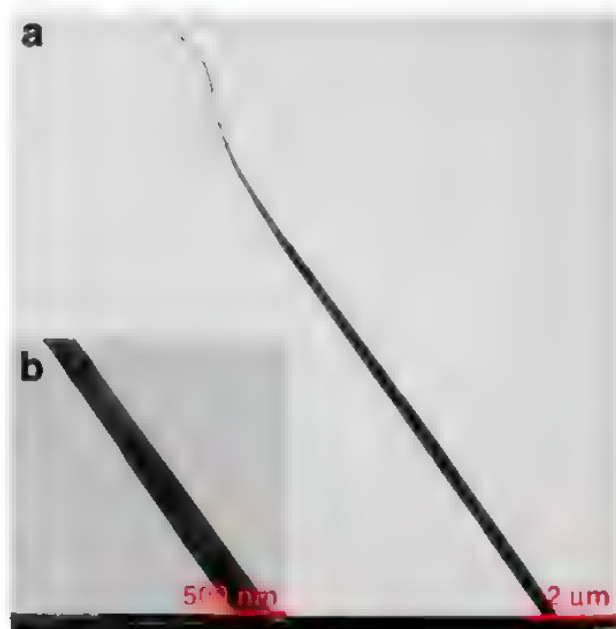
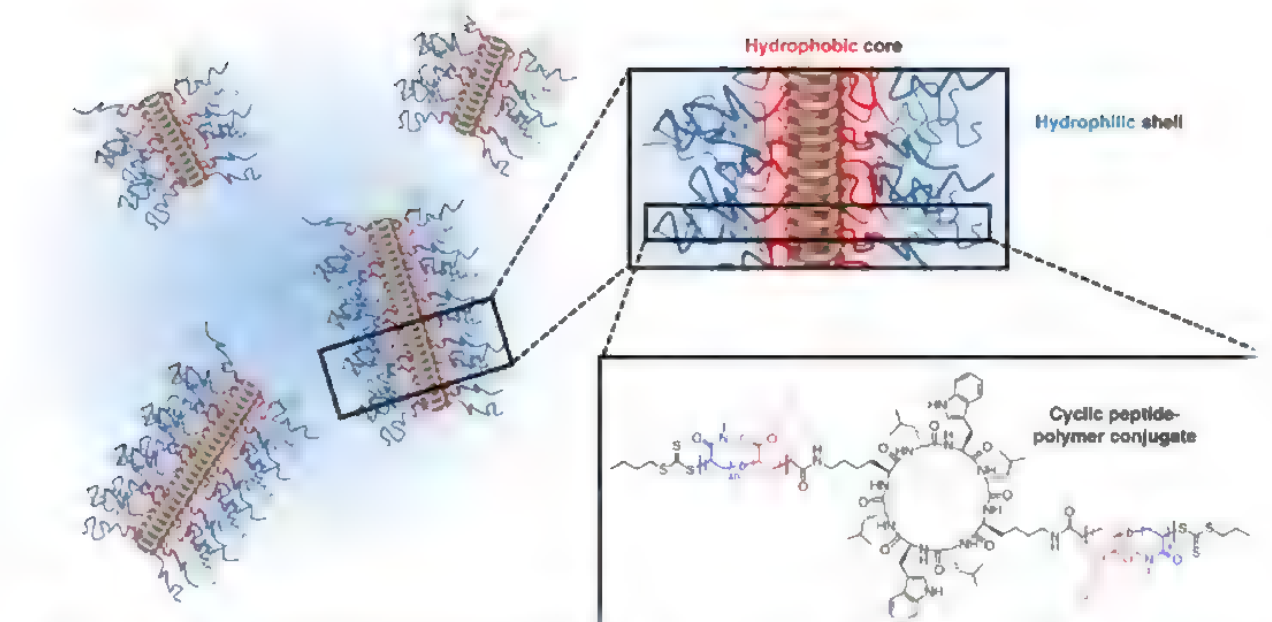
120 min

300 min

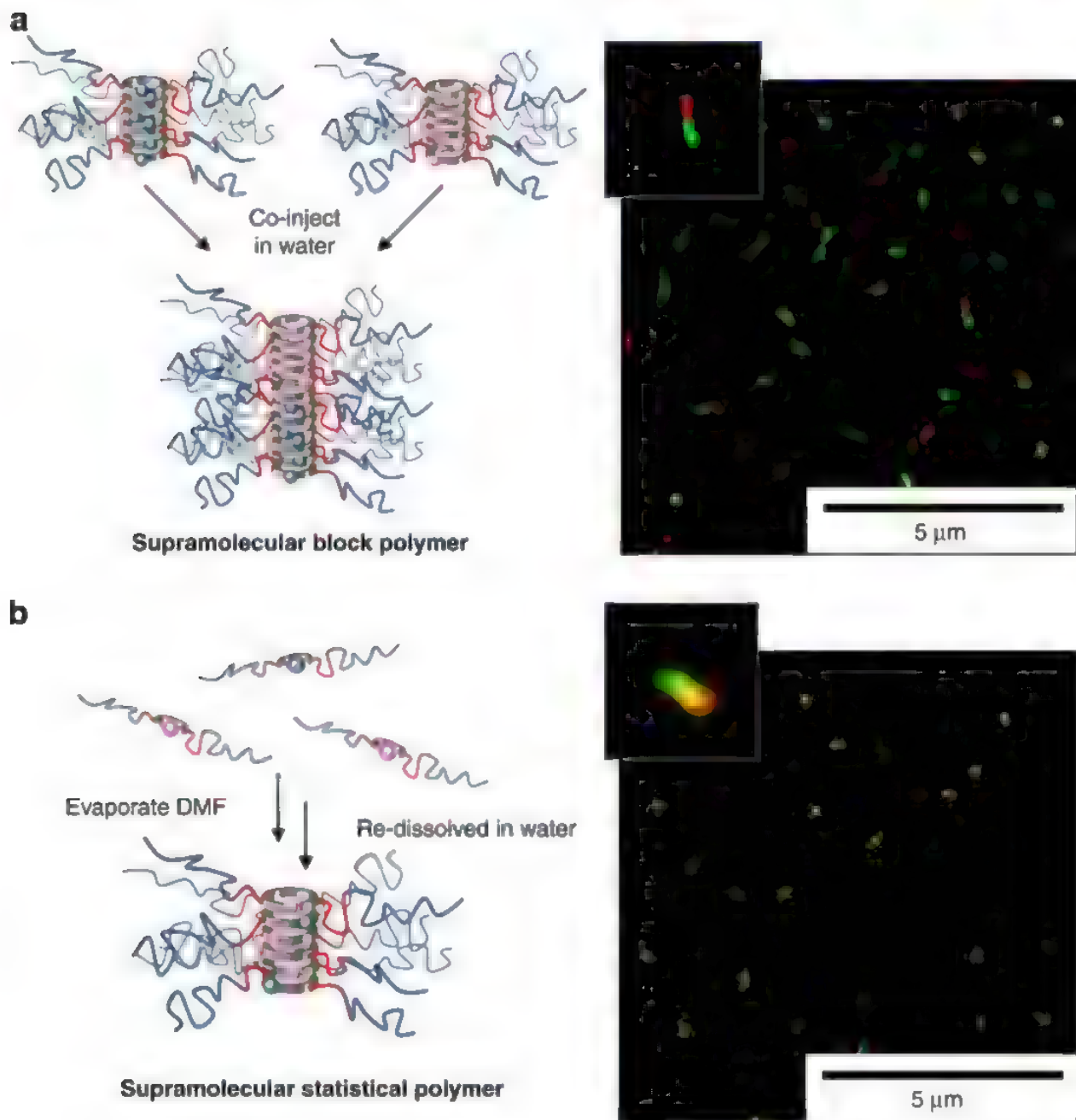
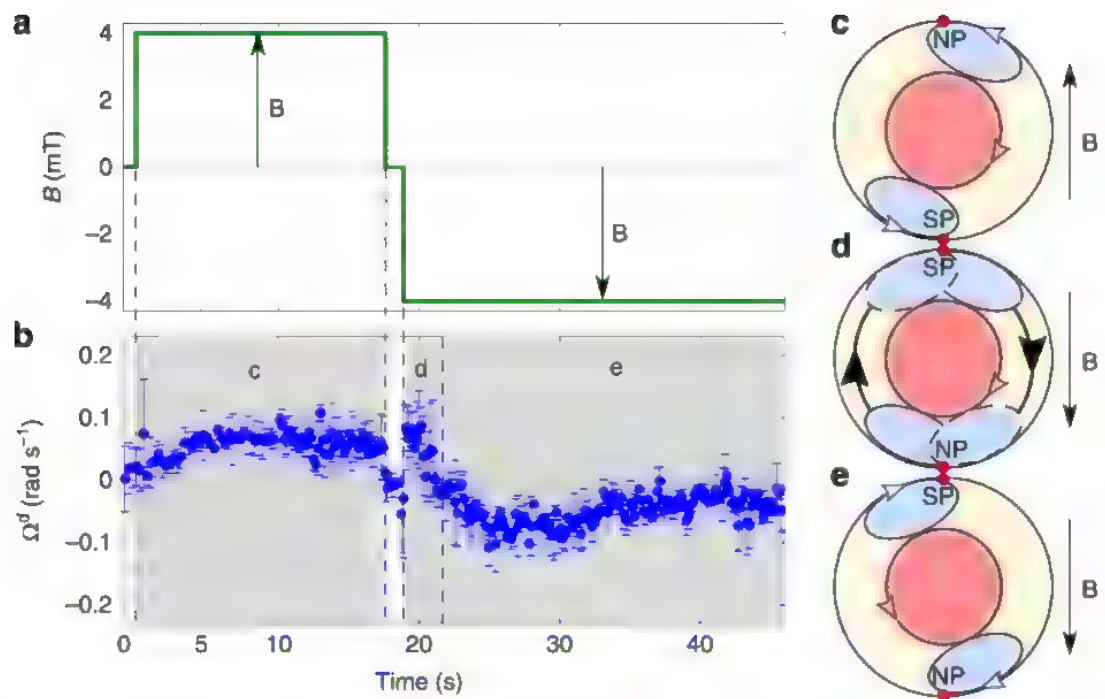
900 min

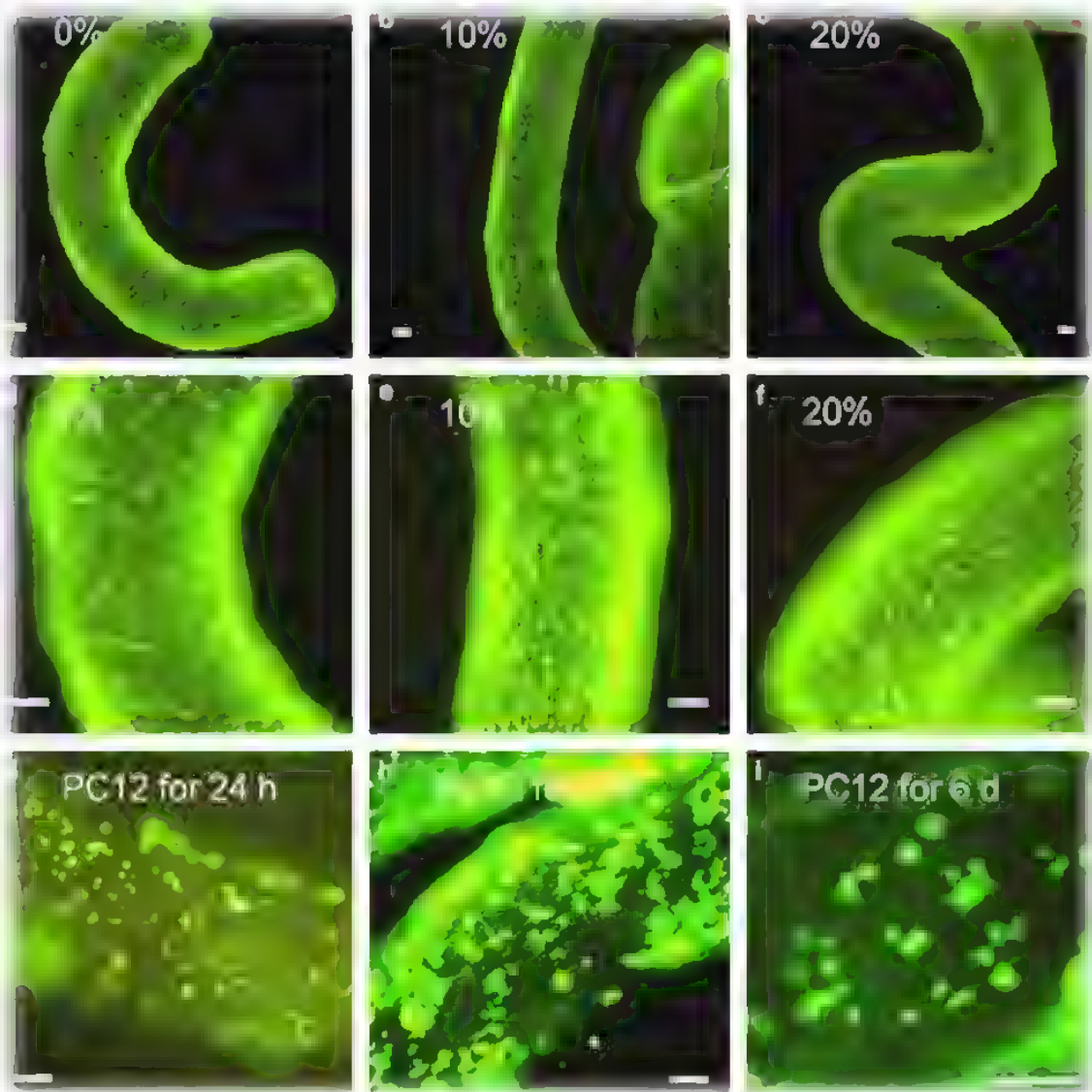
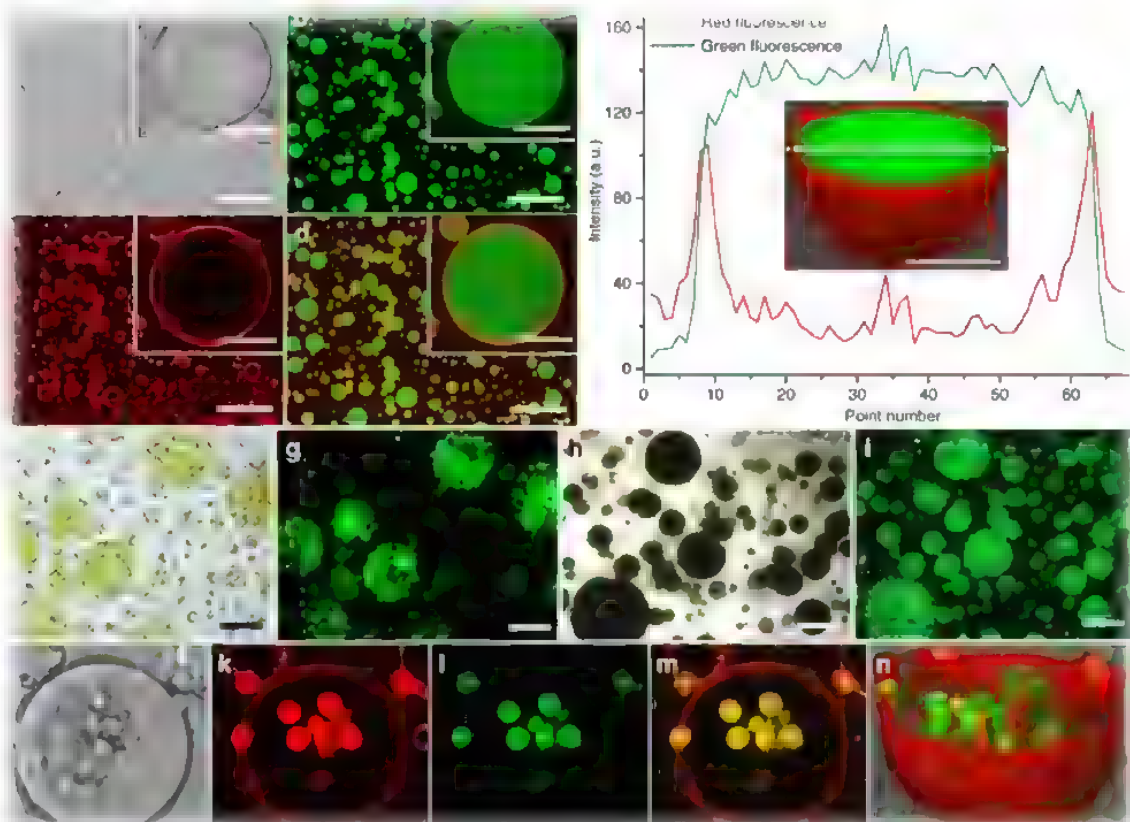


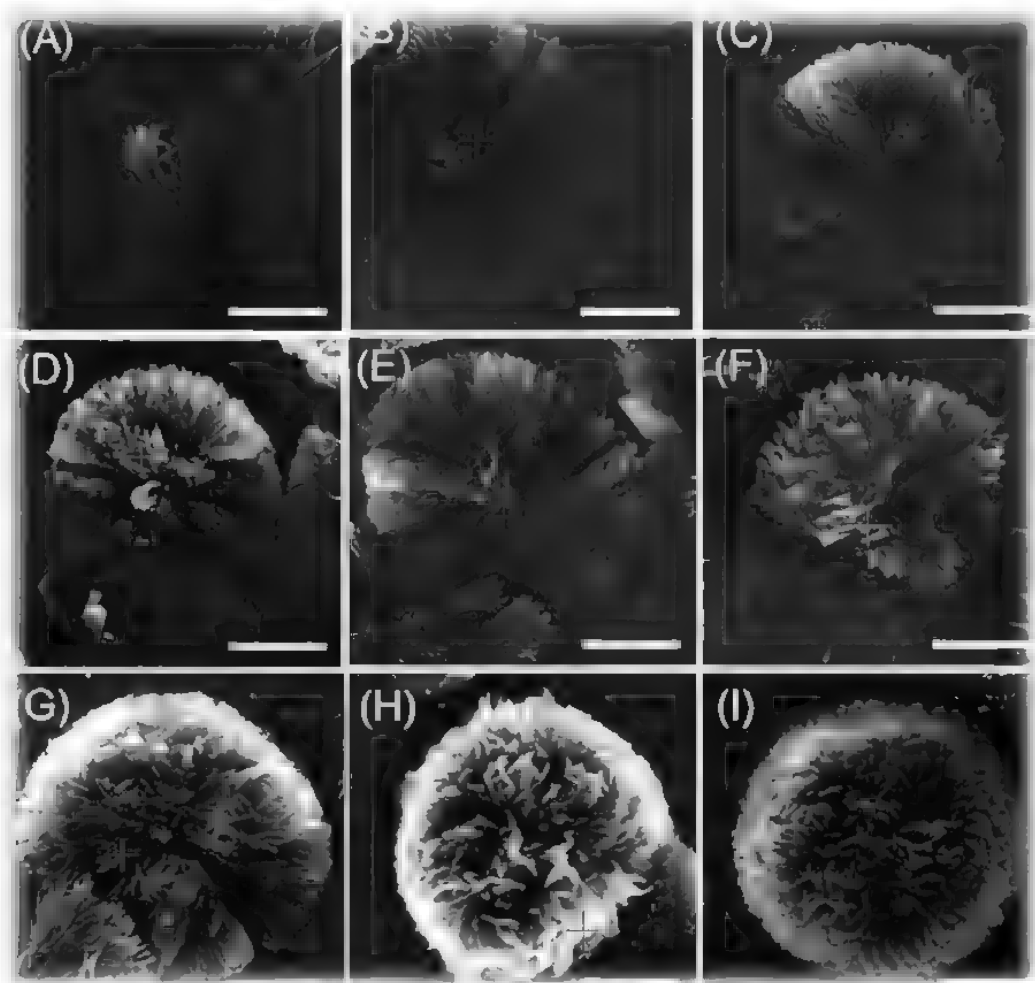
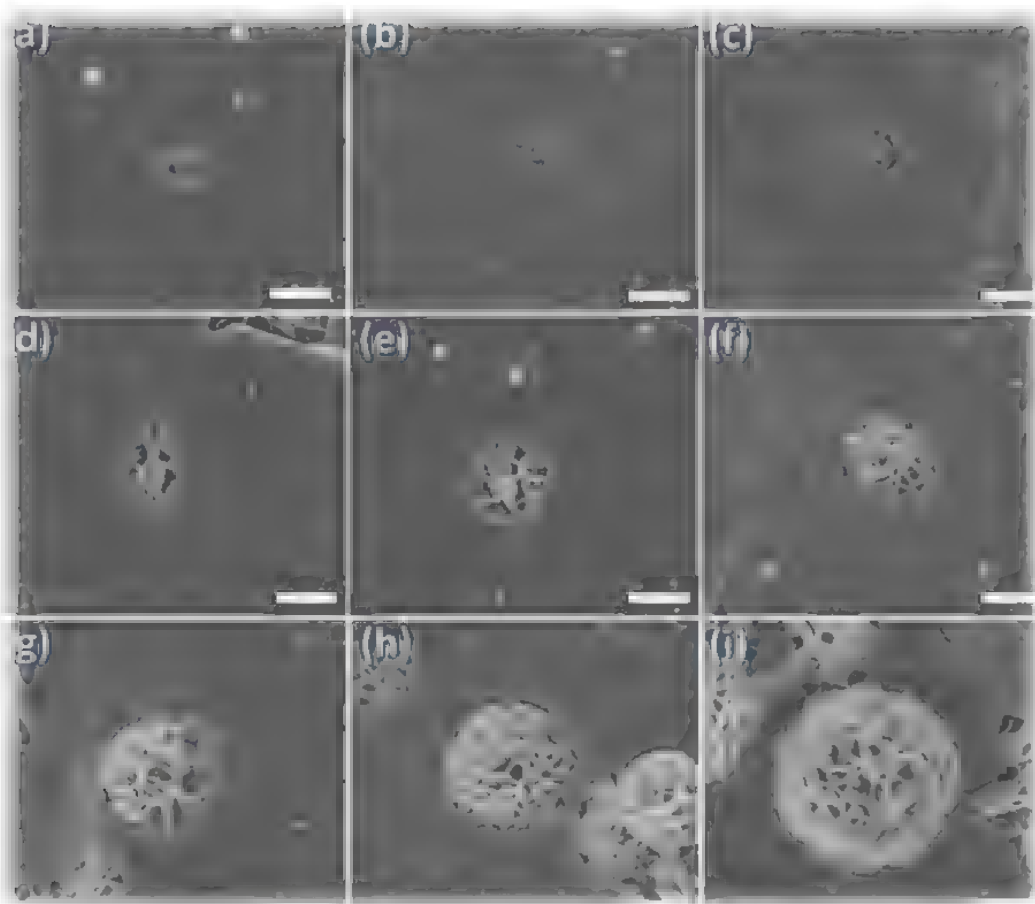


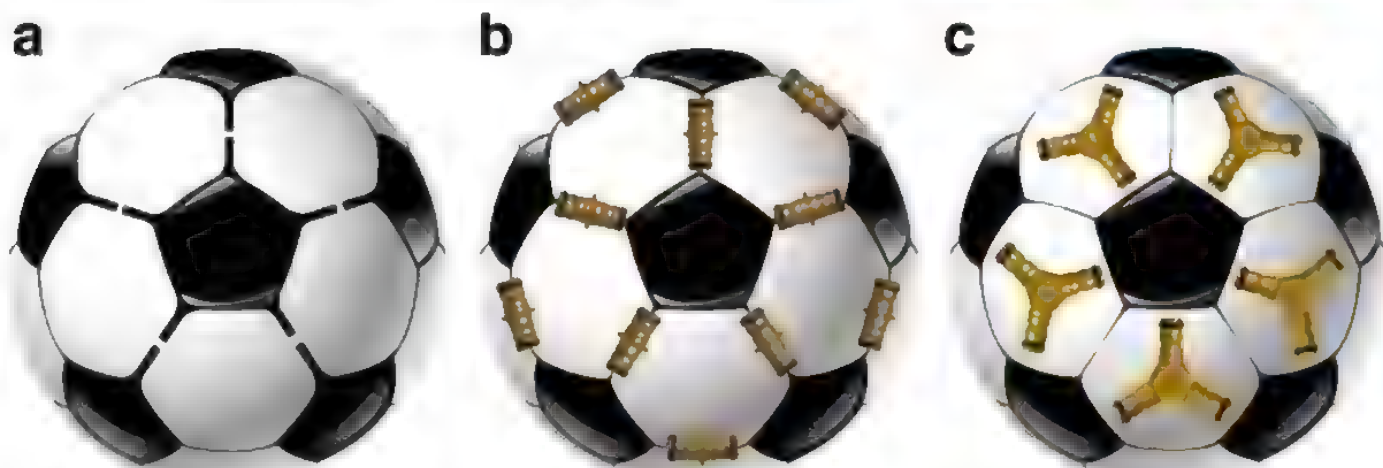
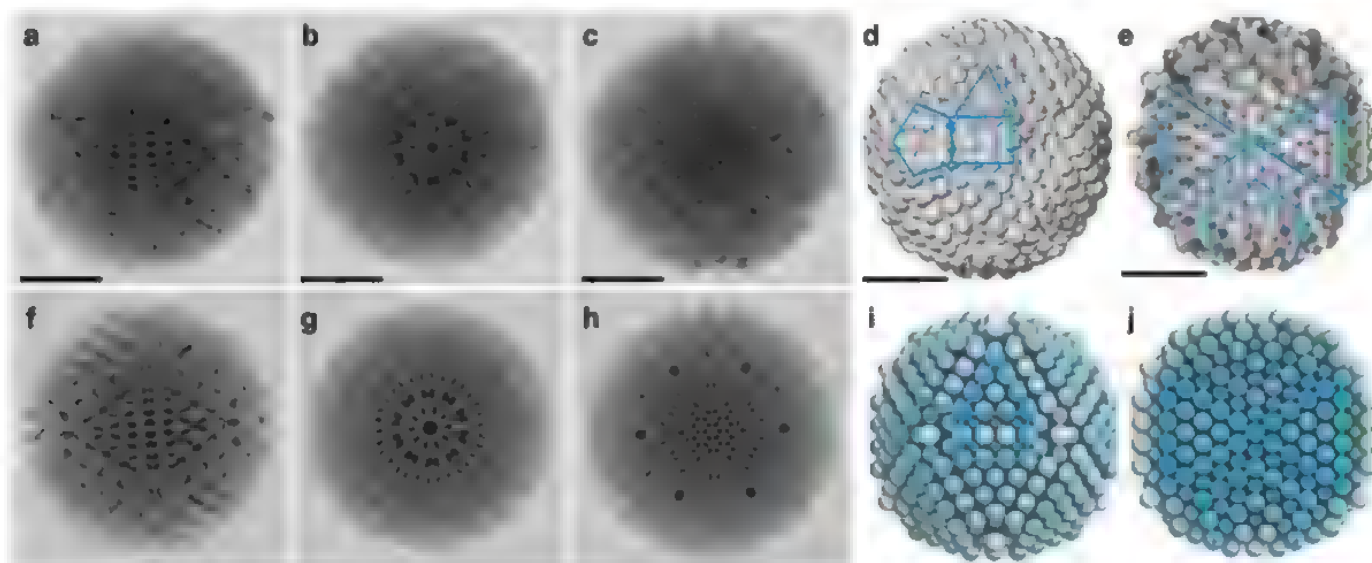
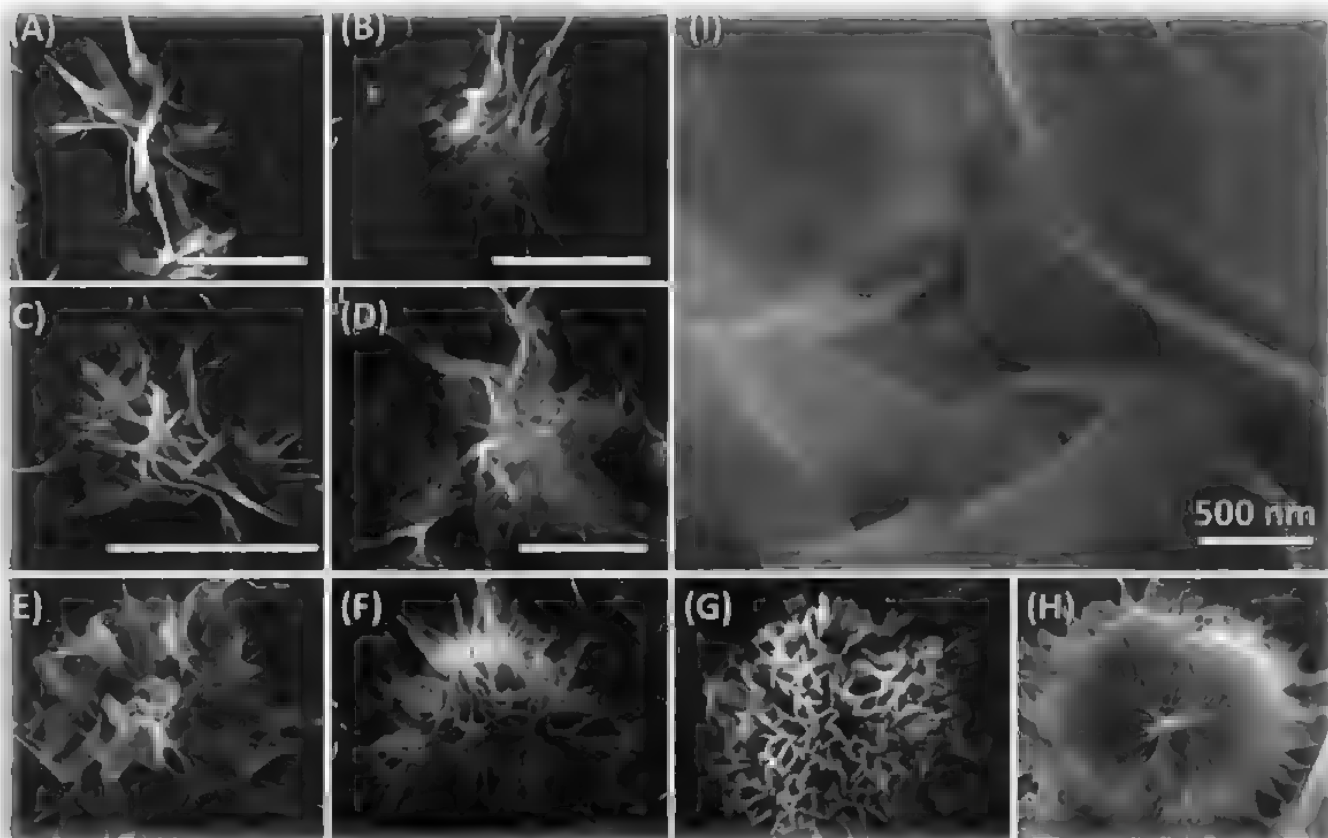




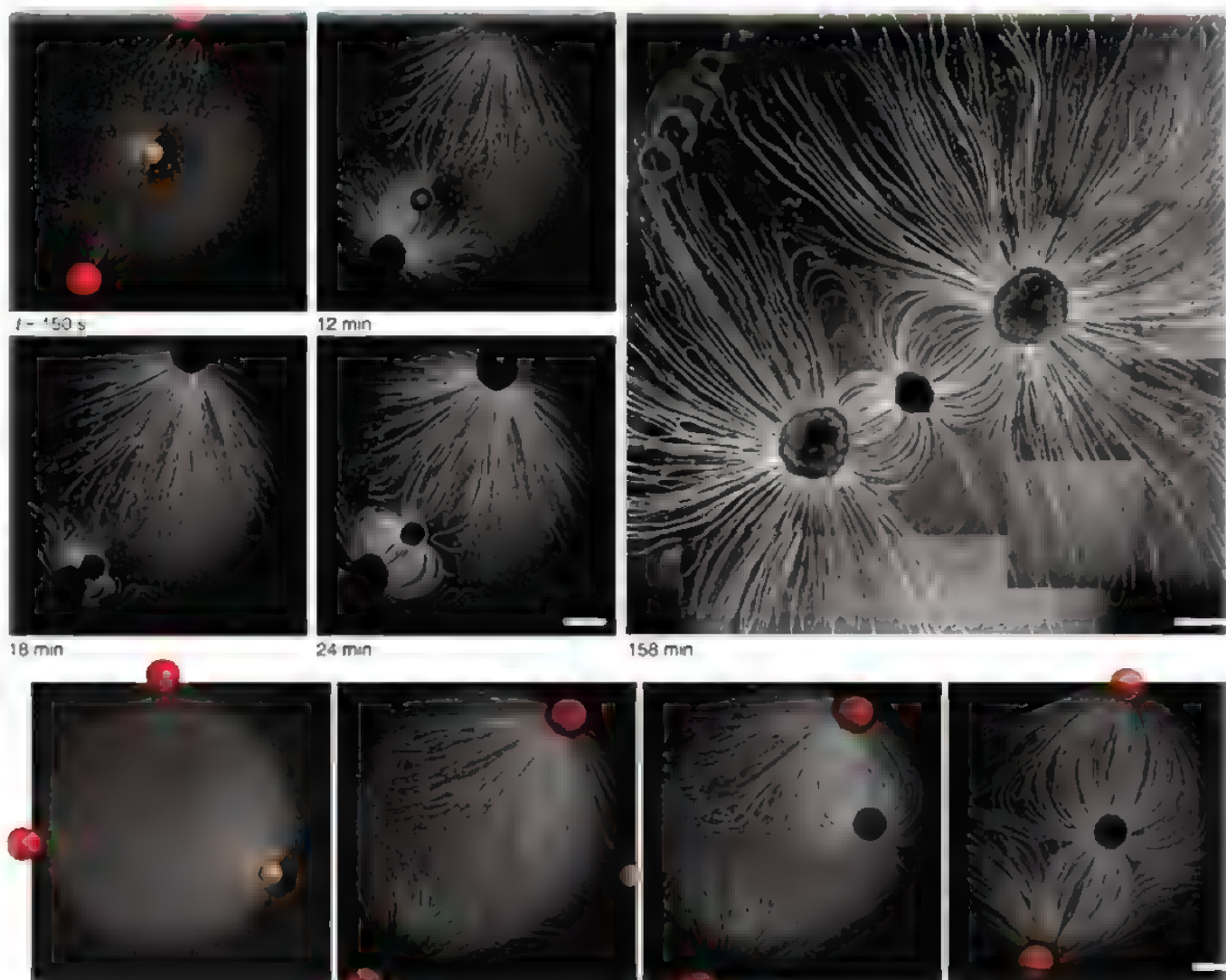
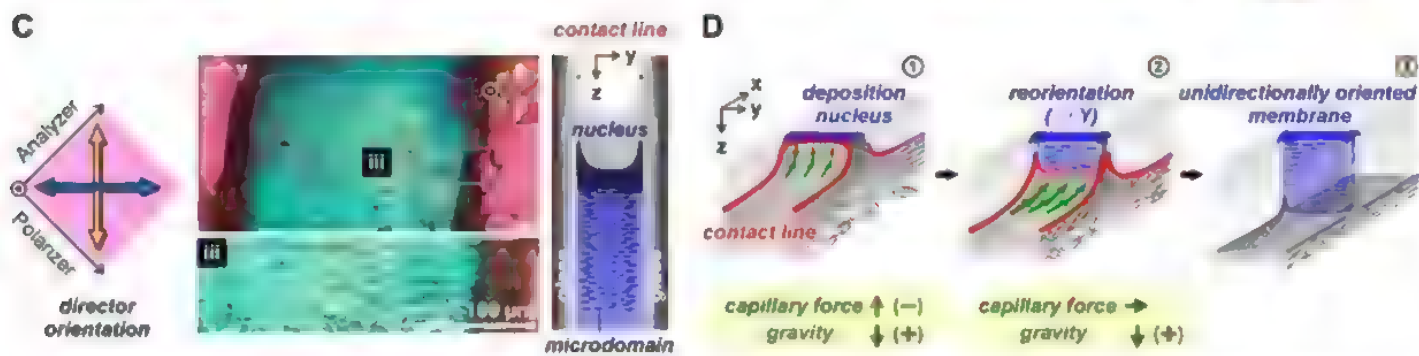
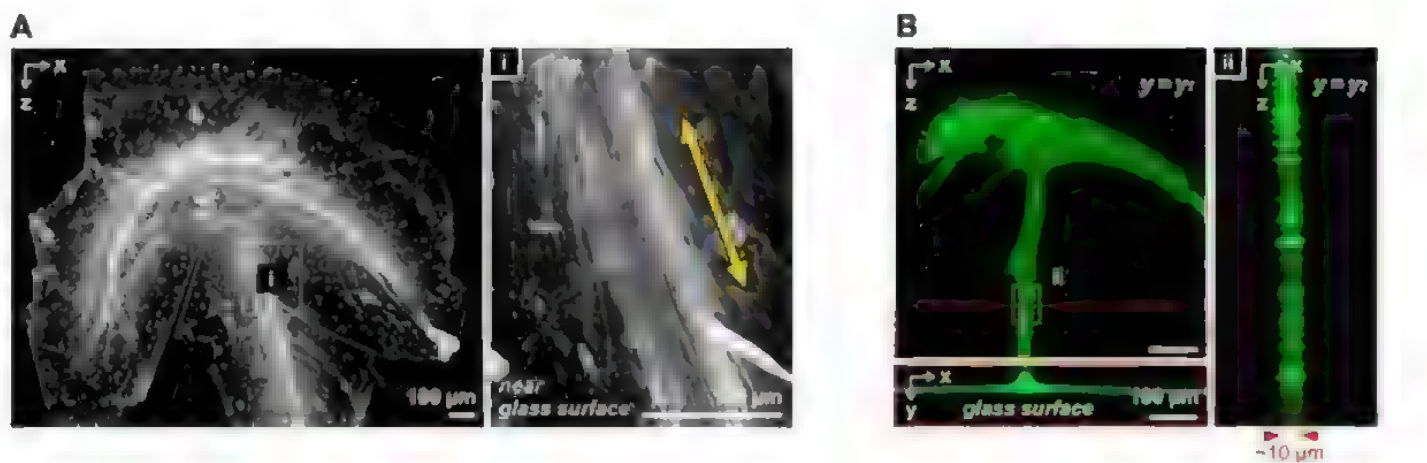


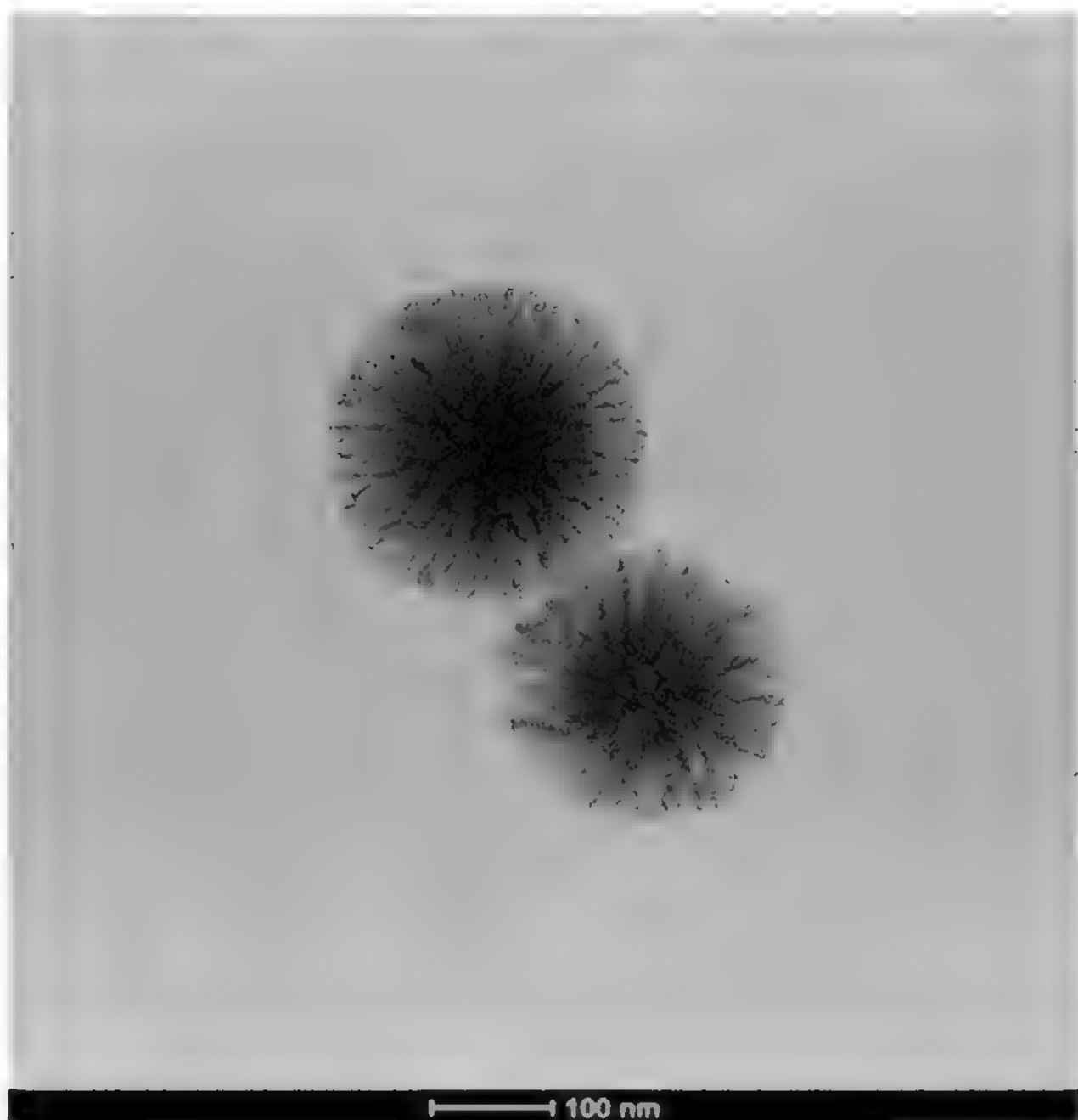
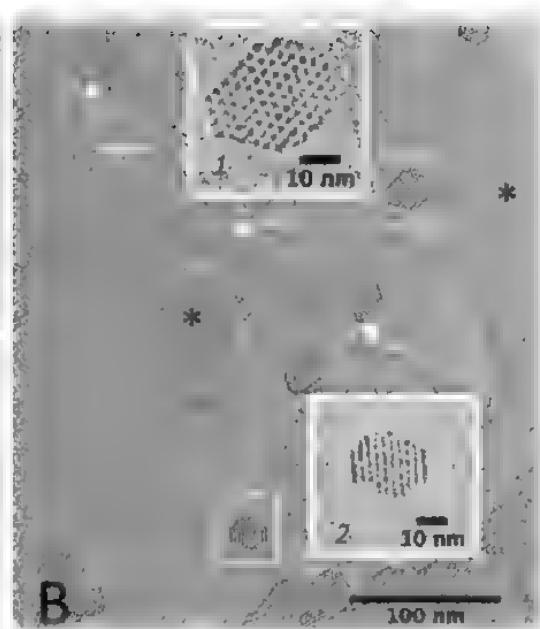
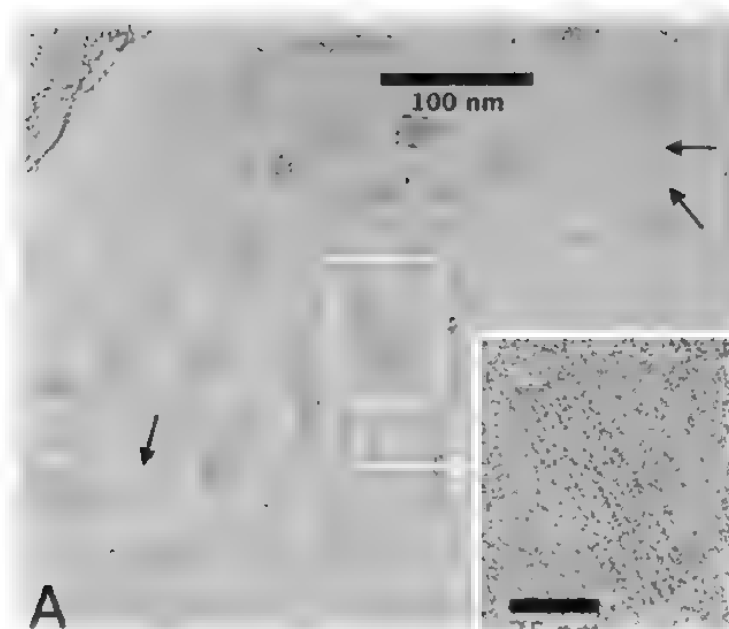


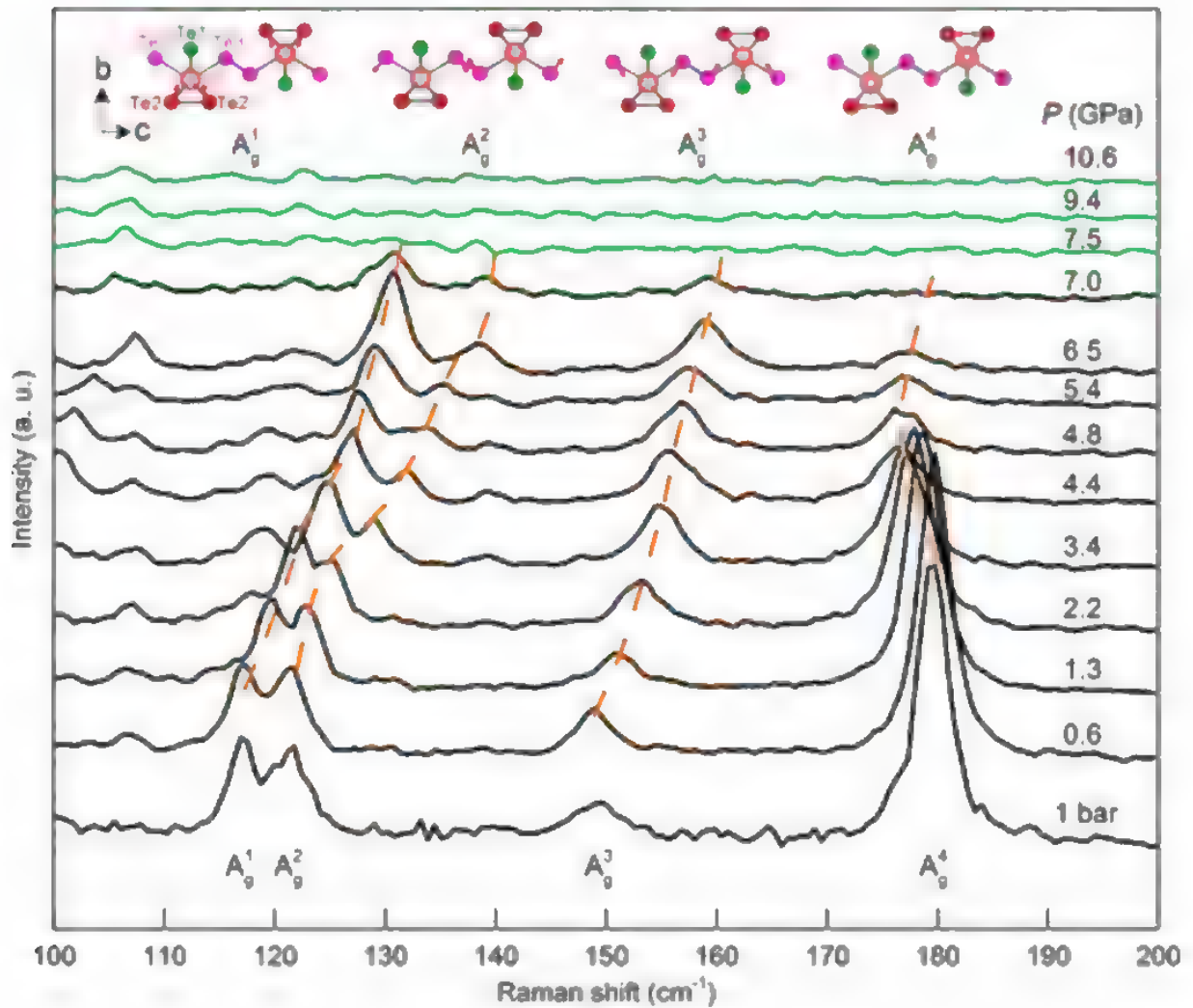
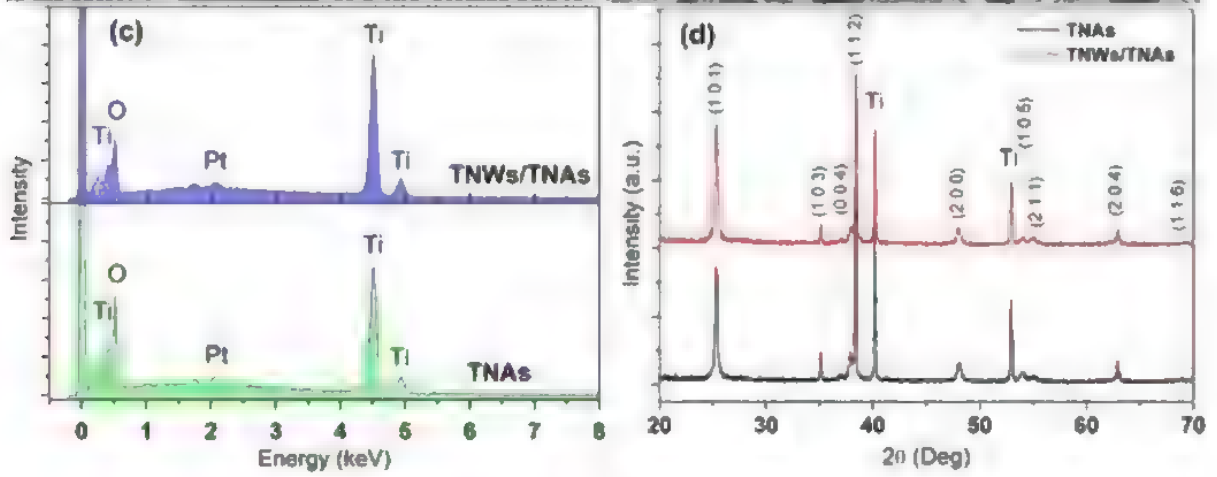
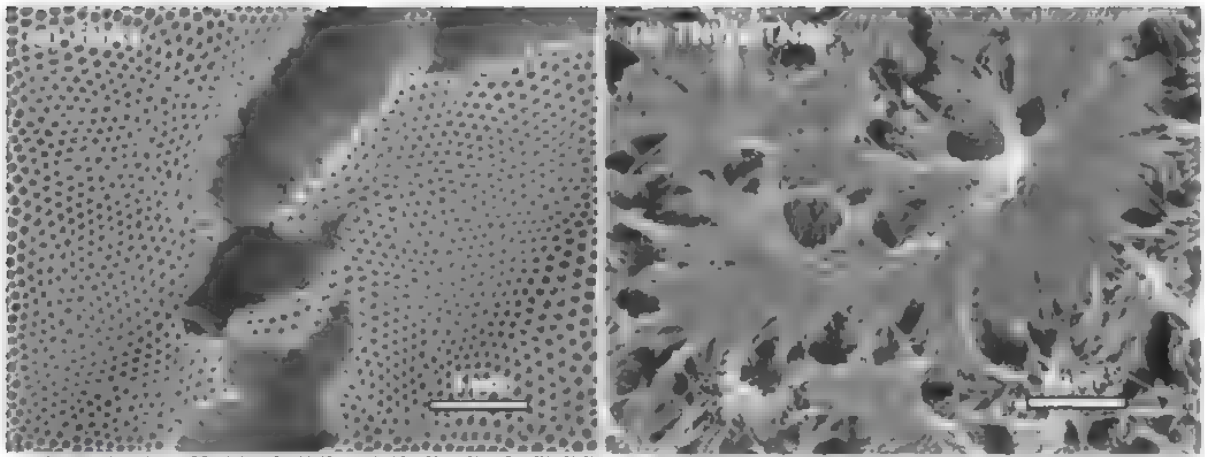


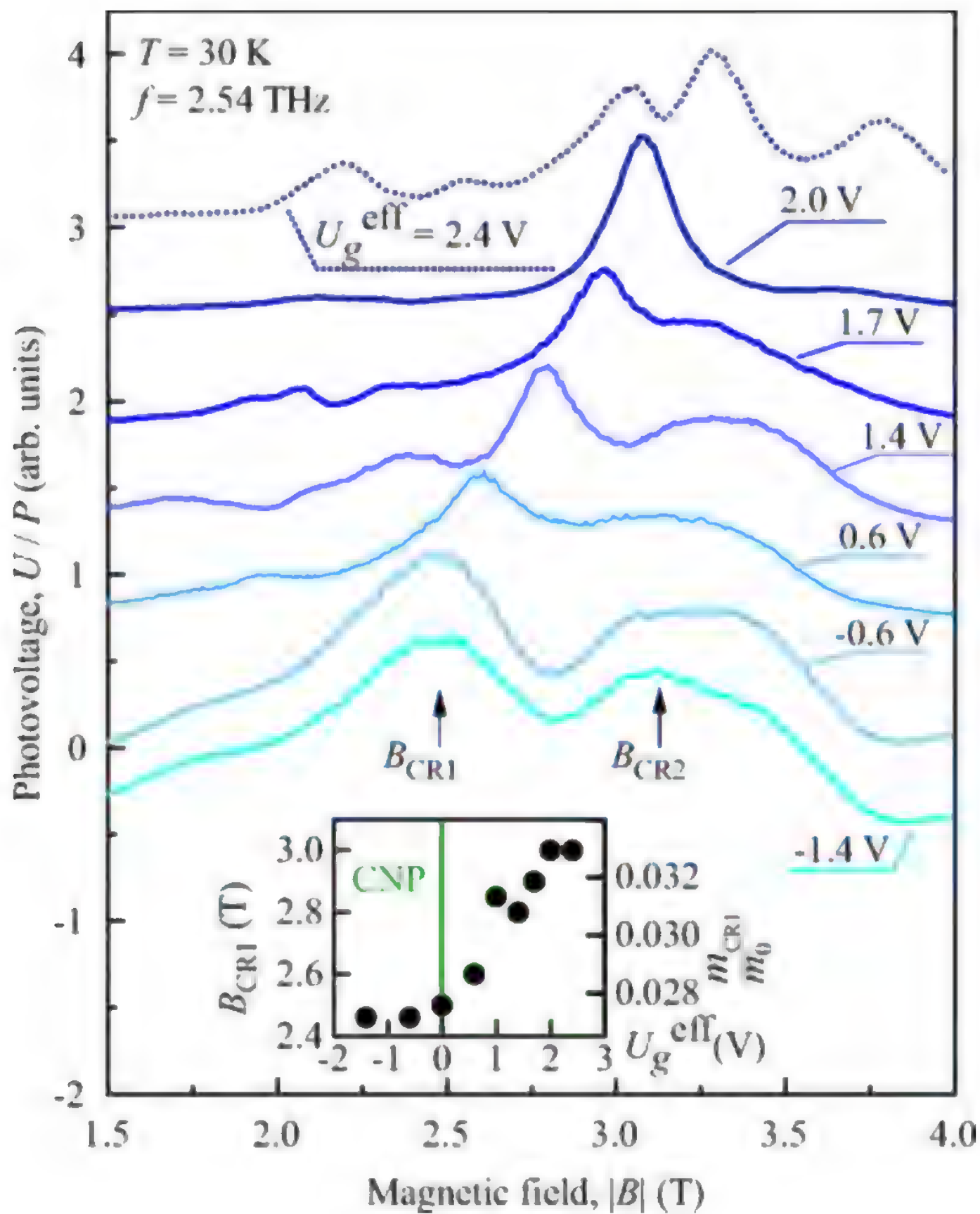




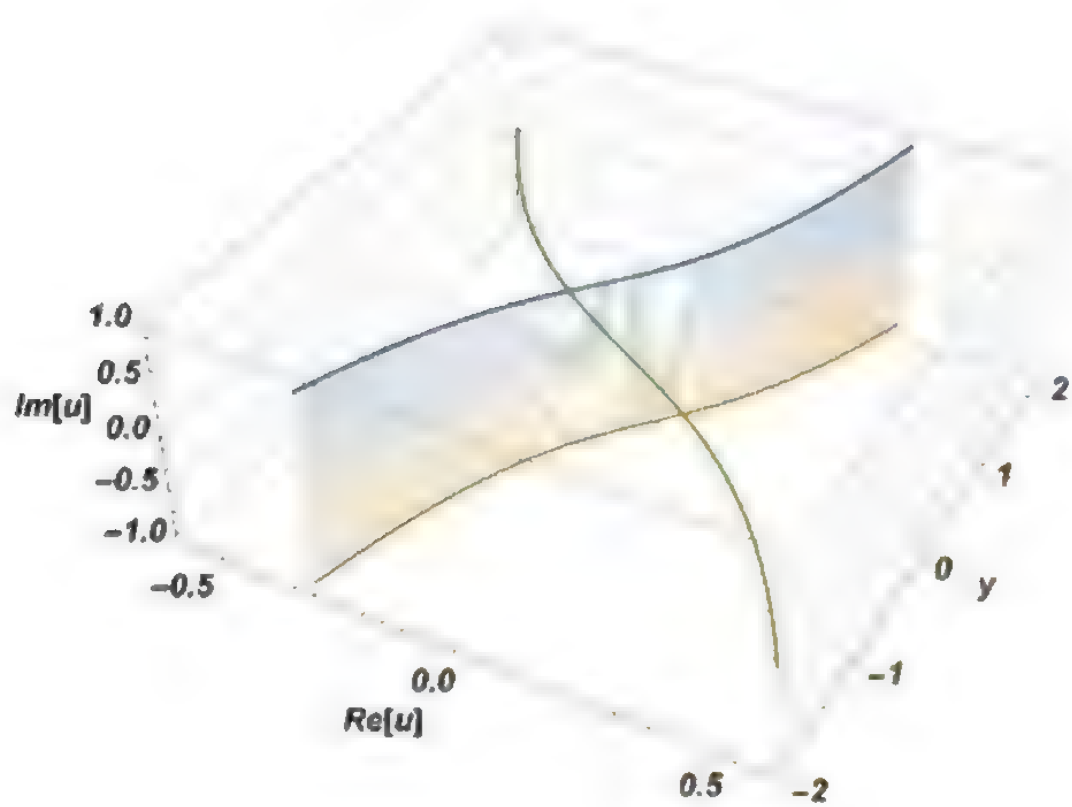
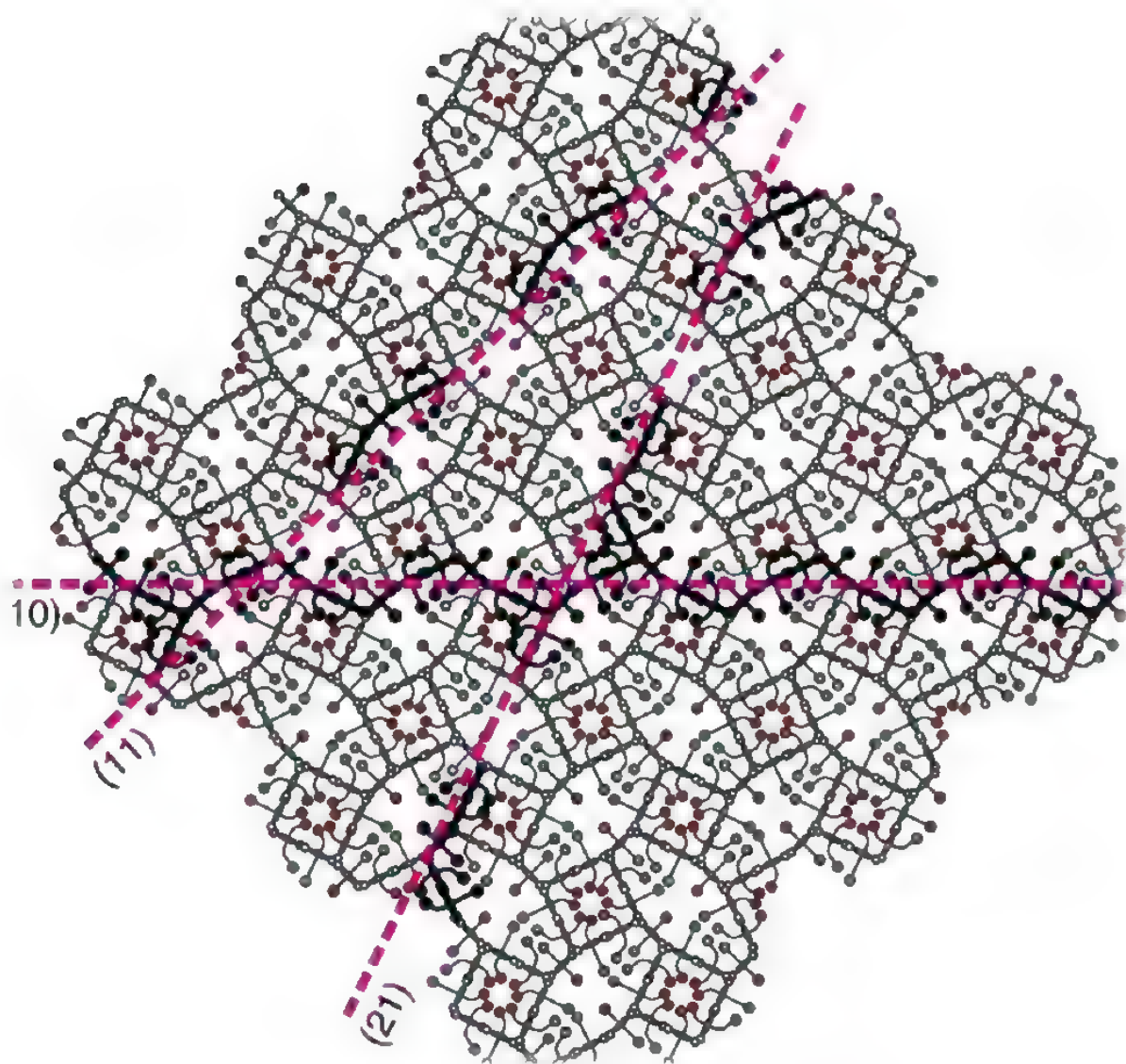


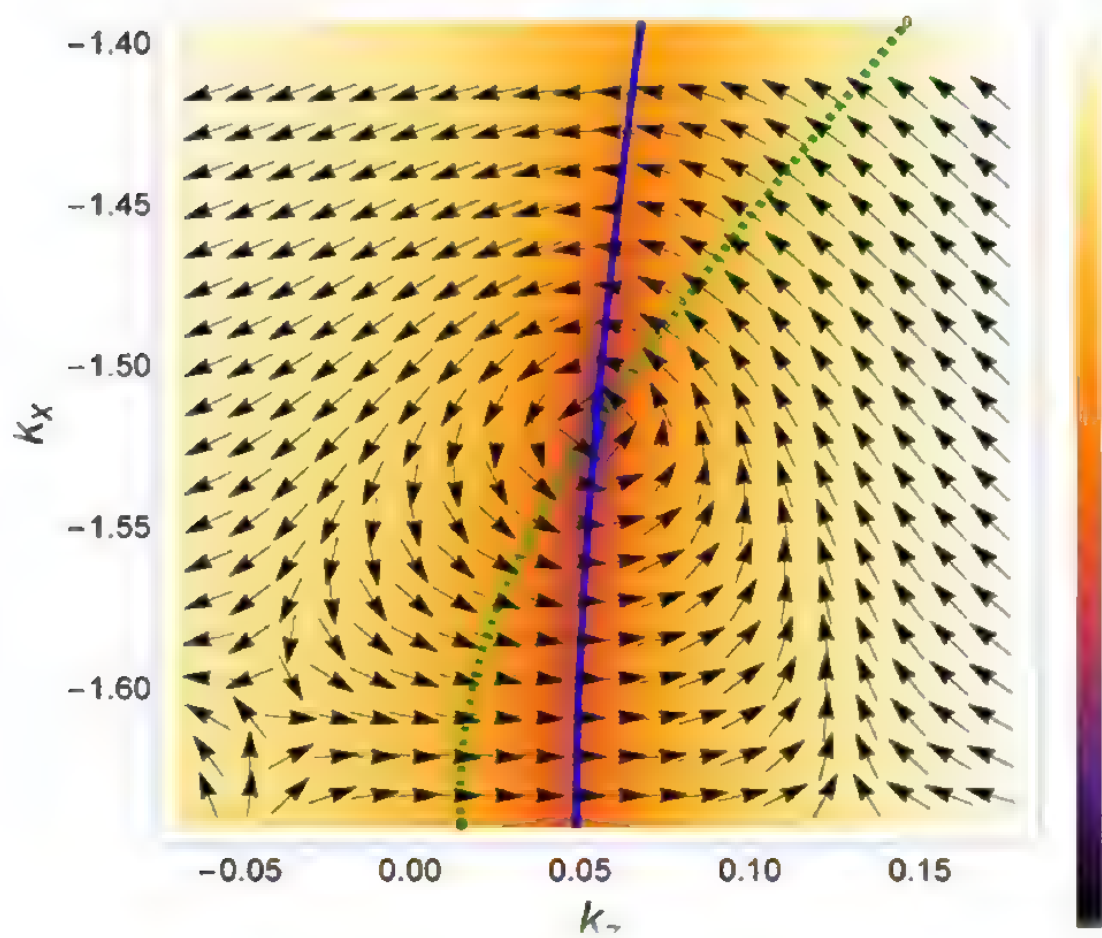
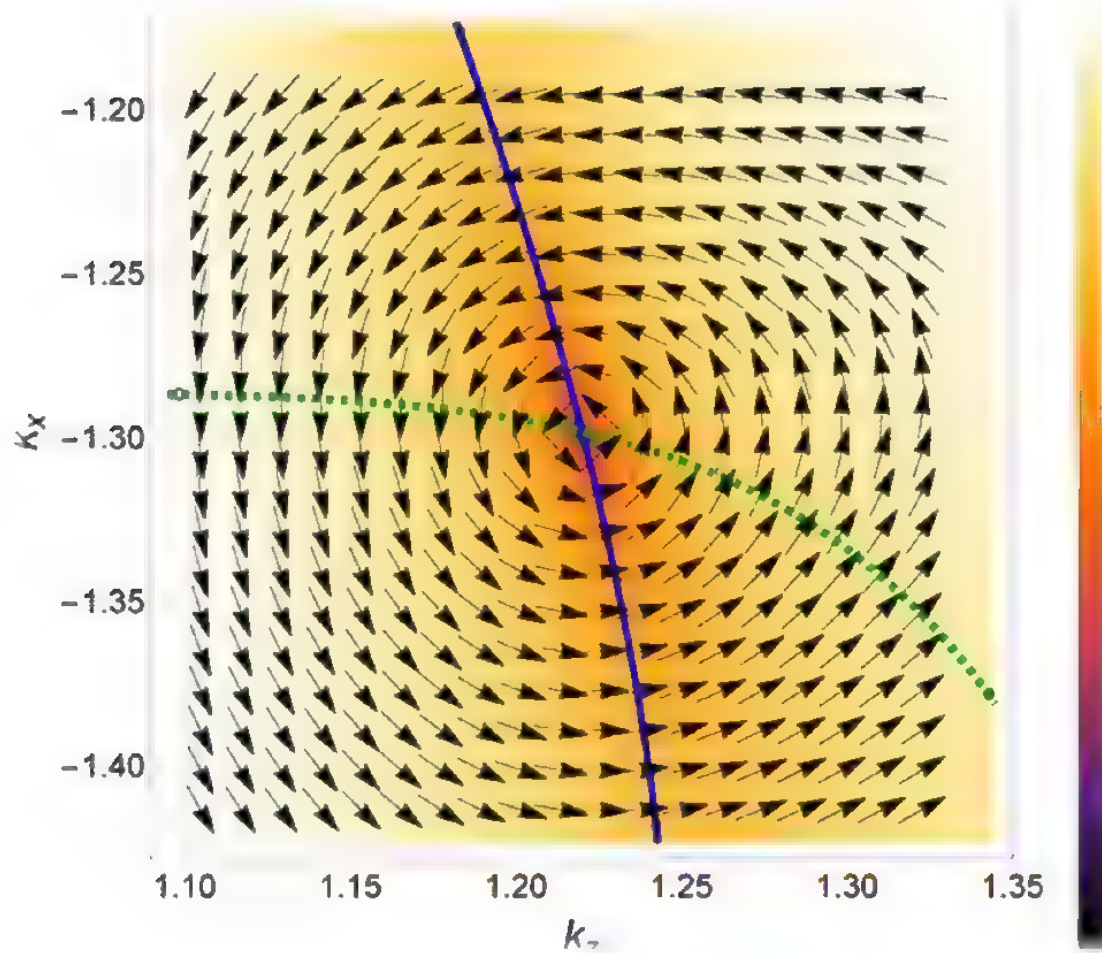


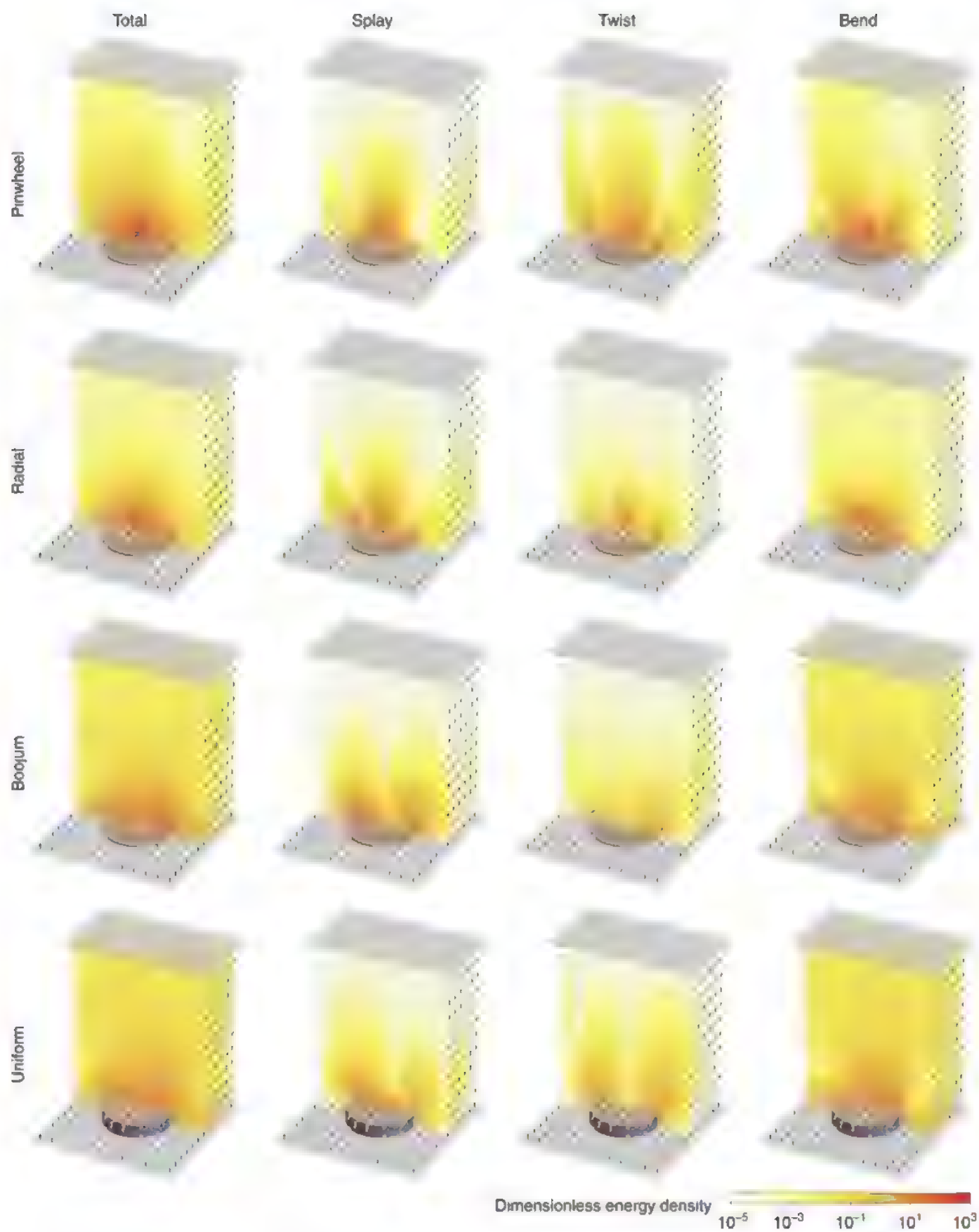


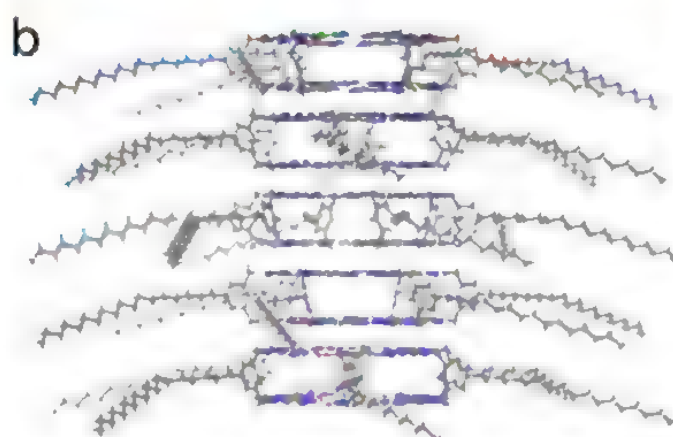
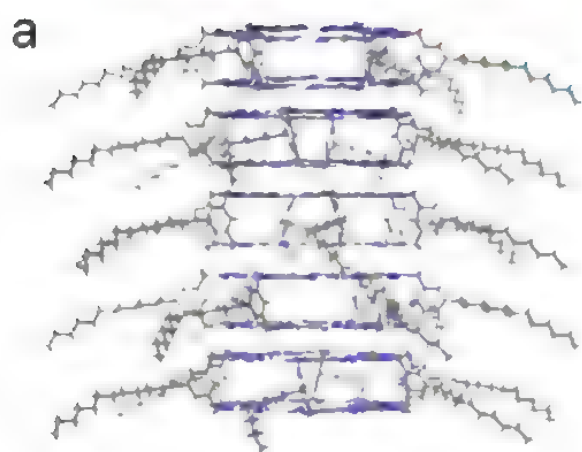
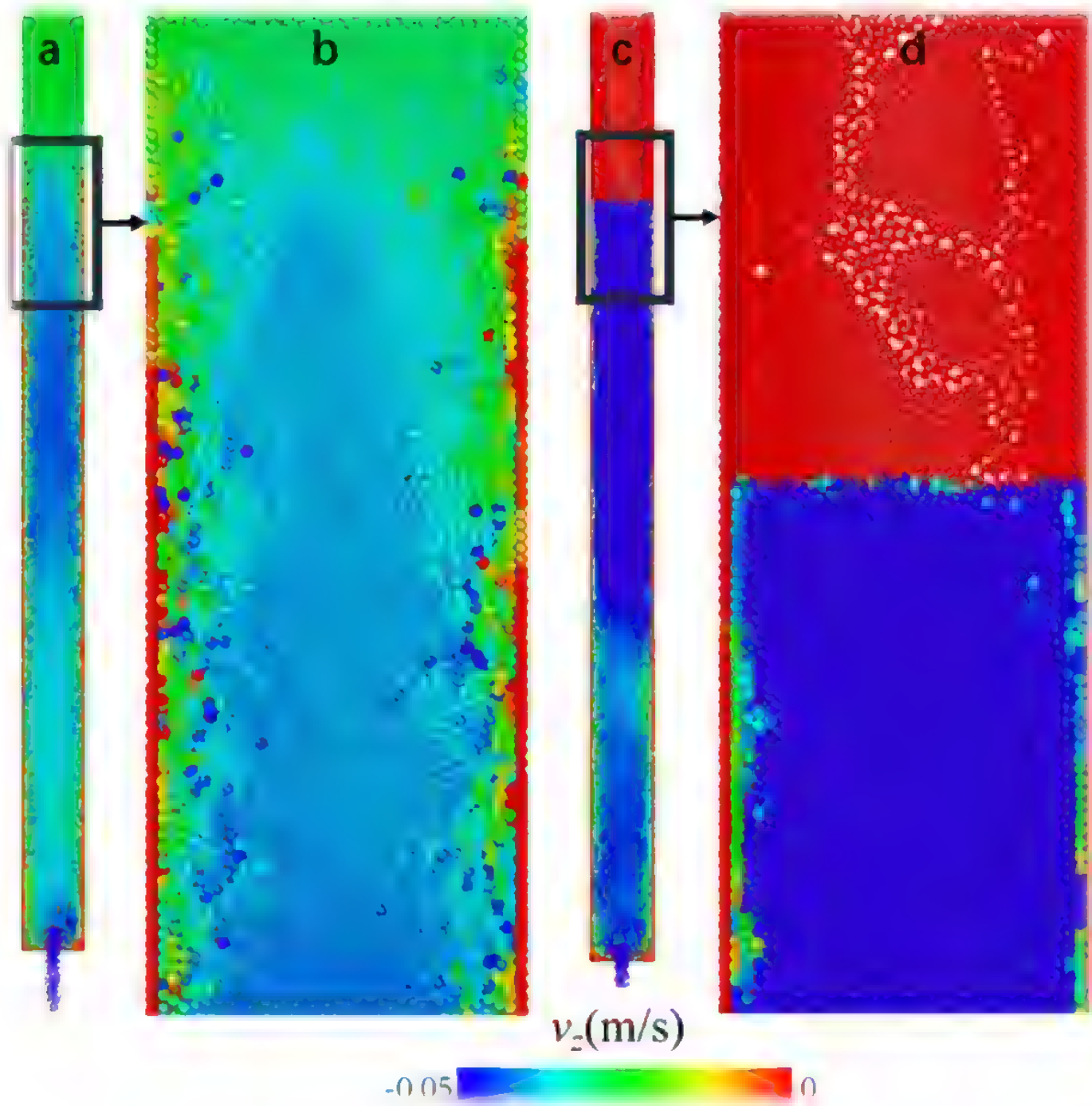






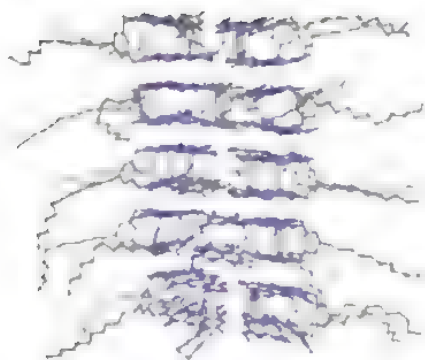
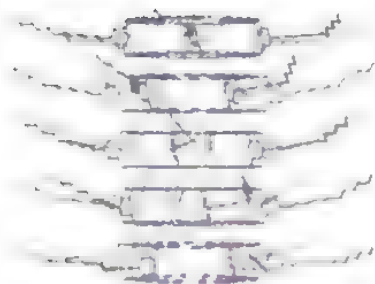




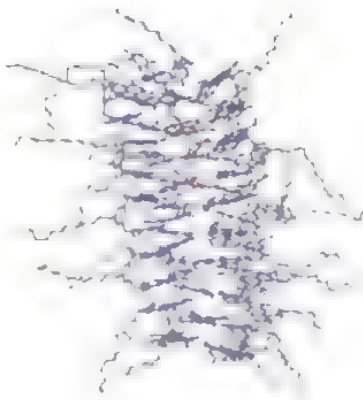
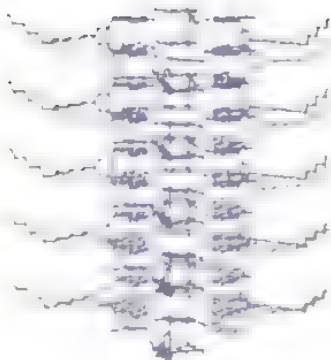




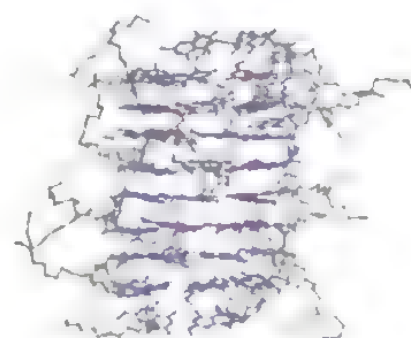
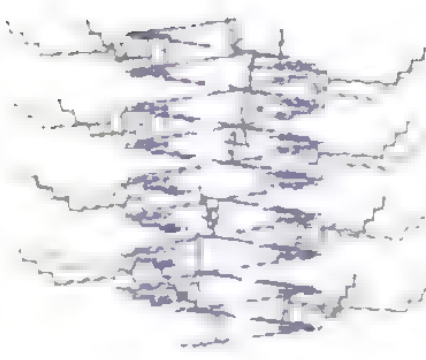
Ring Stack



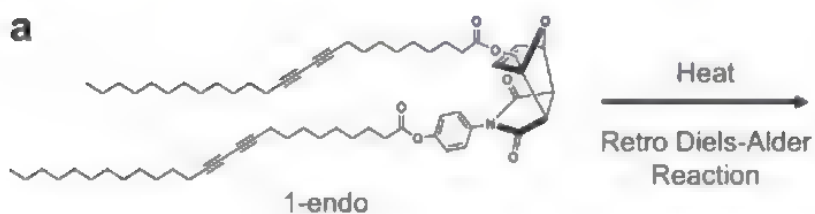
Offset



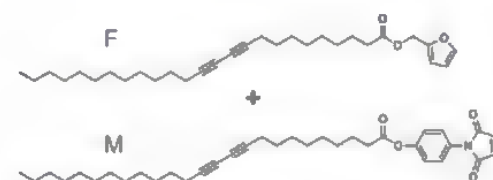
Helical Coil



**a**

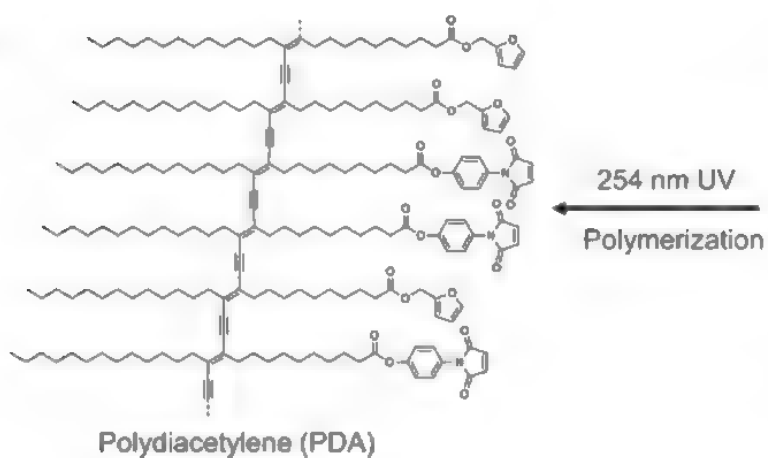


**b**

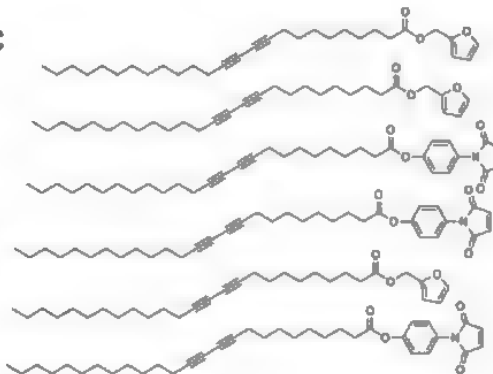


Self-assembly

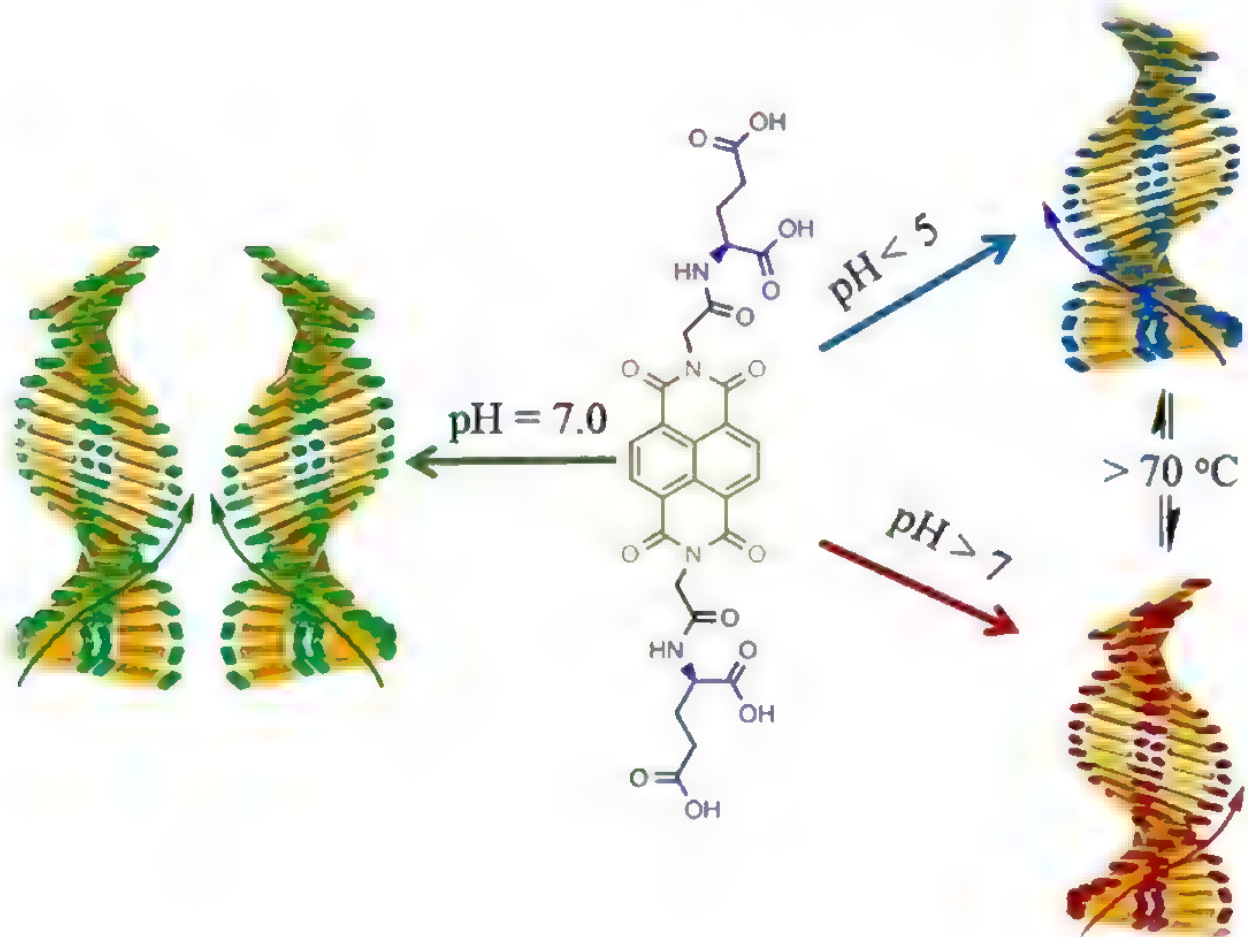
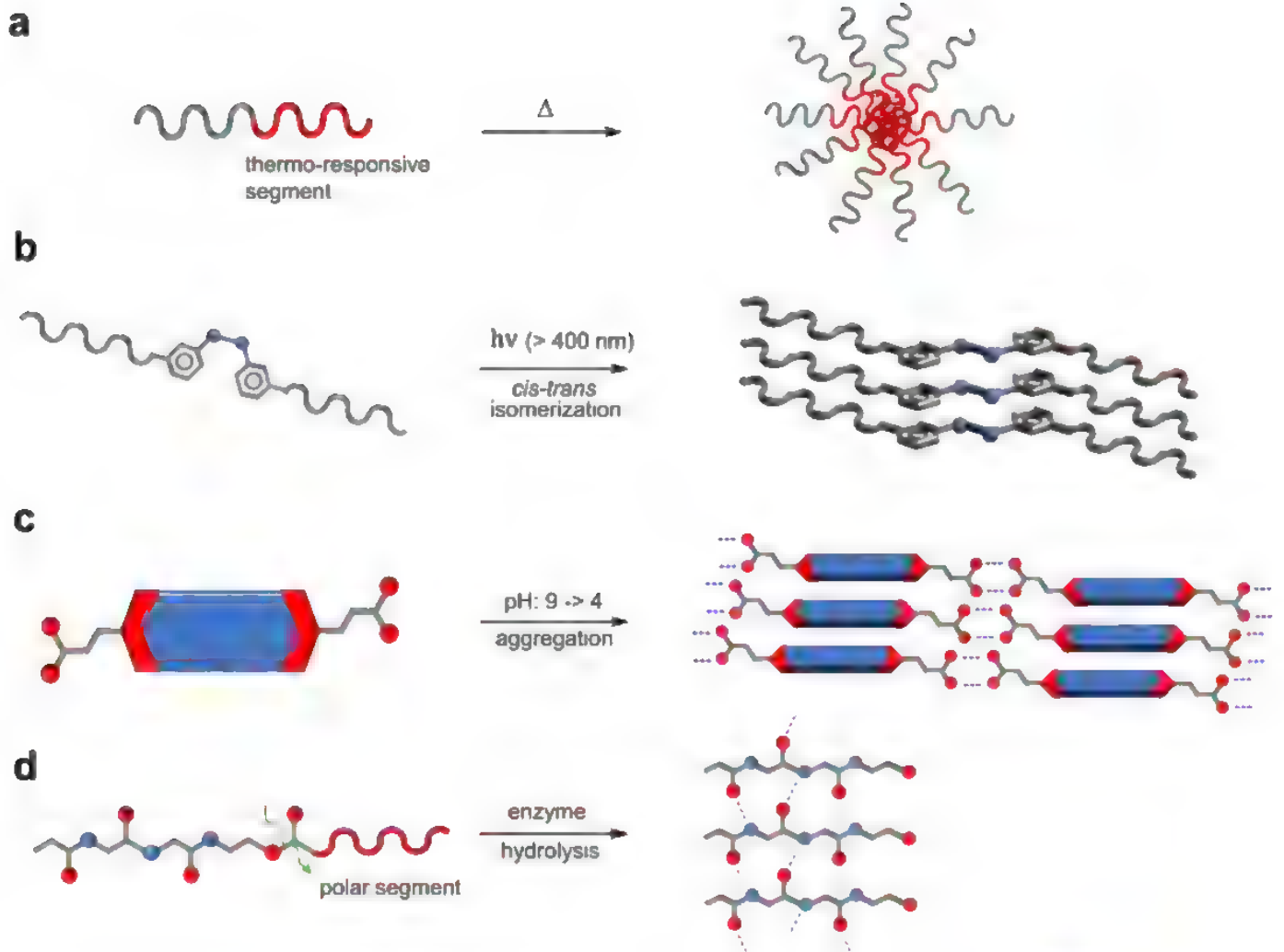
**d**

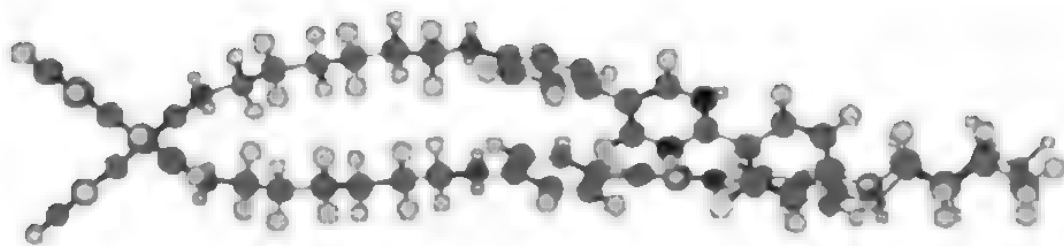


**c**

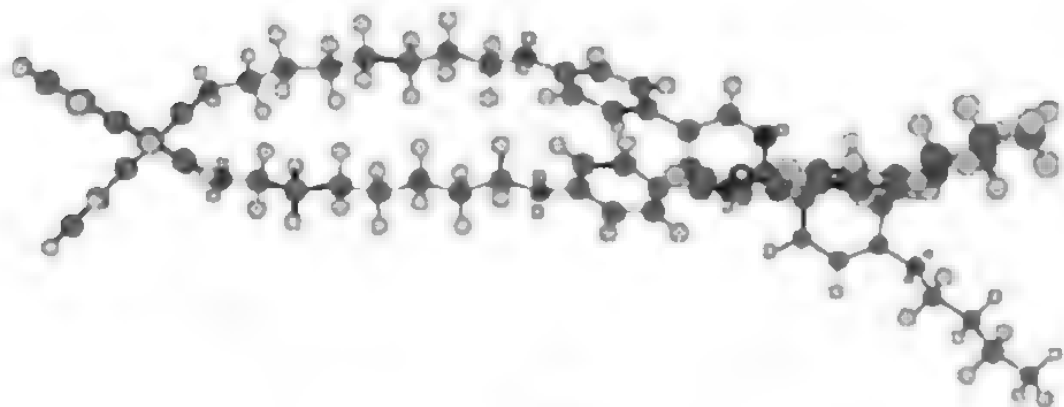


Self-assembled FM

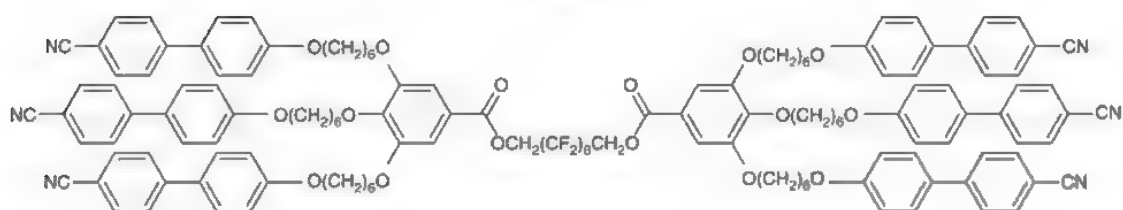




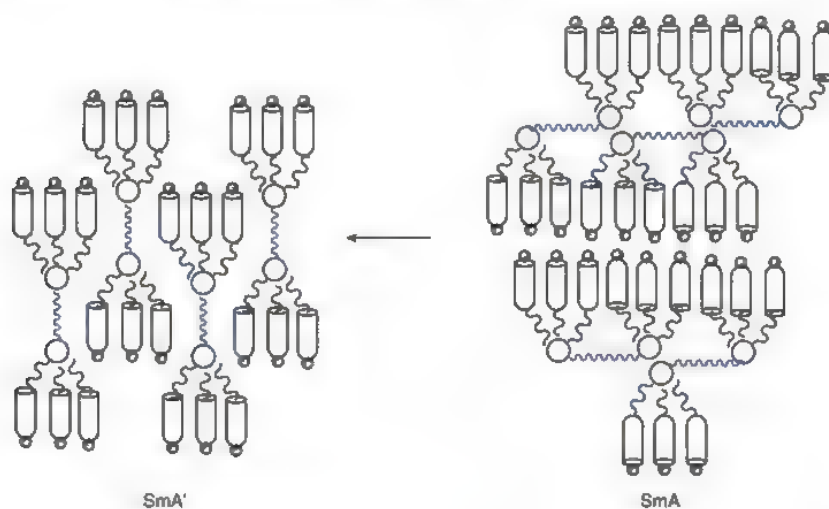
**7-6**



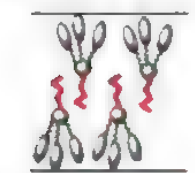
**7-7**



**6:** Cr 122.0 °C [SmA' 46.8 °C SmA 101.8 °C N 121.4 °C] Iso



**Segregation effect**

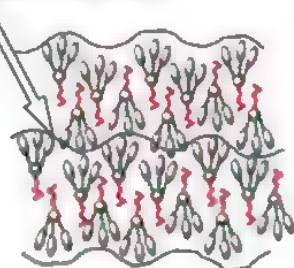


**Steric effect**

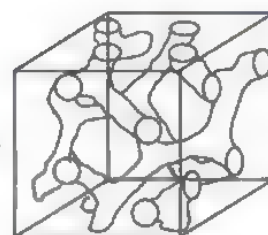


**Dipole-dipole interactions**

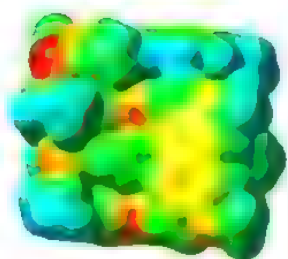
**Competition**



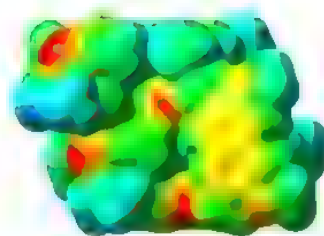
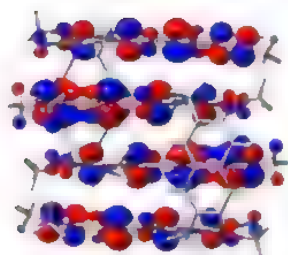
**Fluctuated lamellar structure**



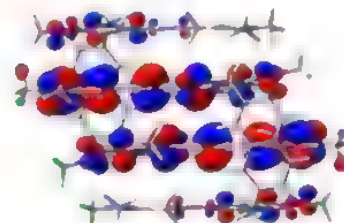
**Bicontinuous cubic phase**

**a** $|\mu_g| = 0 \text{ D}$ 

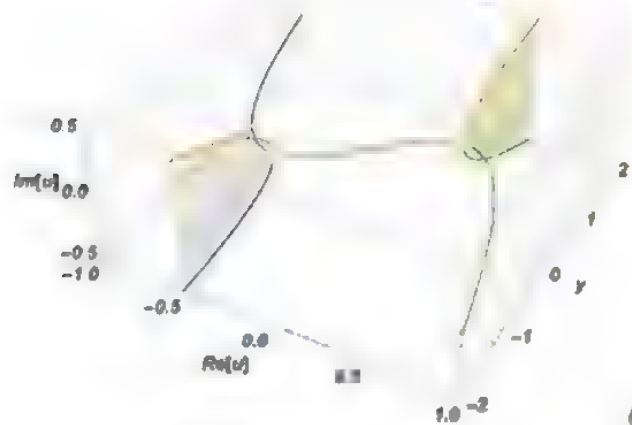
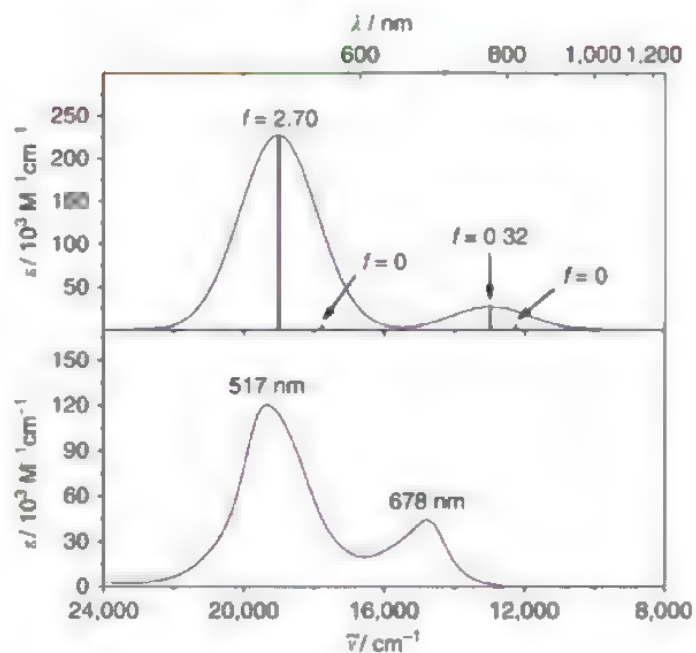
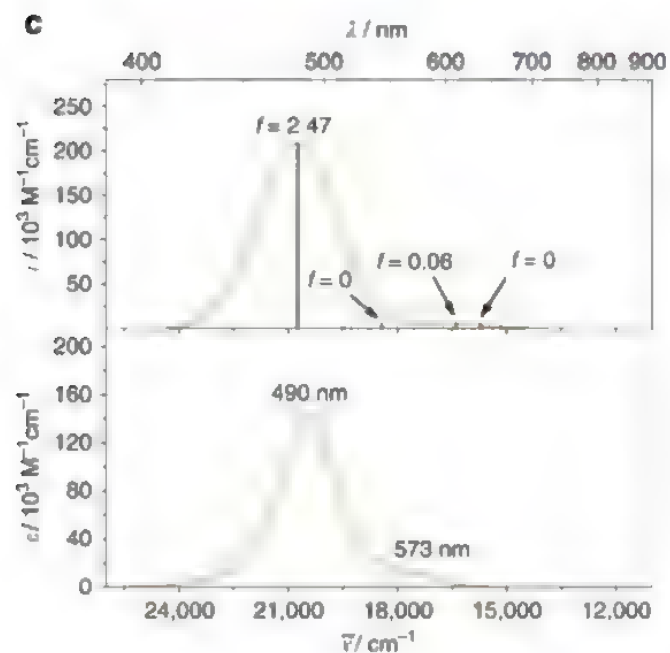
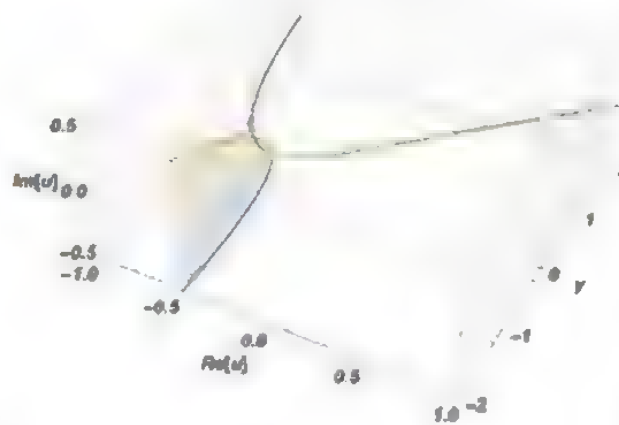
-0.05 a.u. 0.05 a.u.

 $|\mu_g| = 0 \text{ D}$ **b**

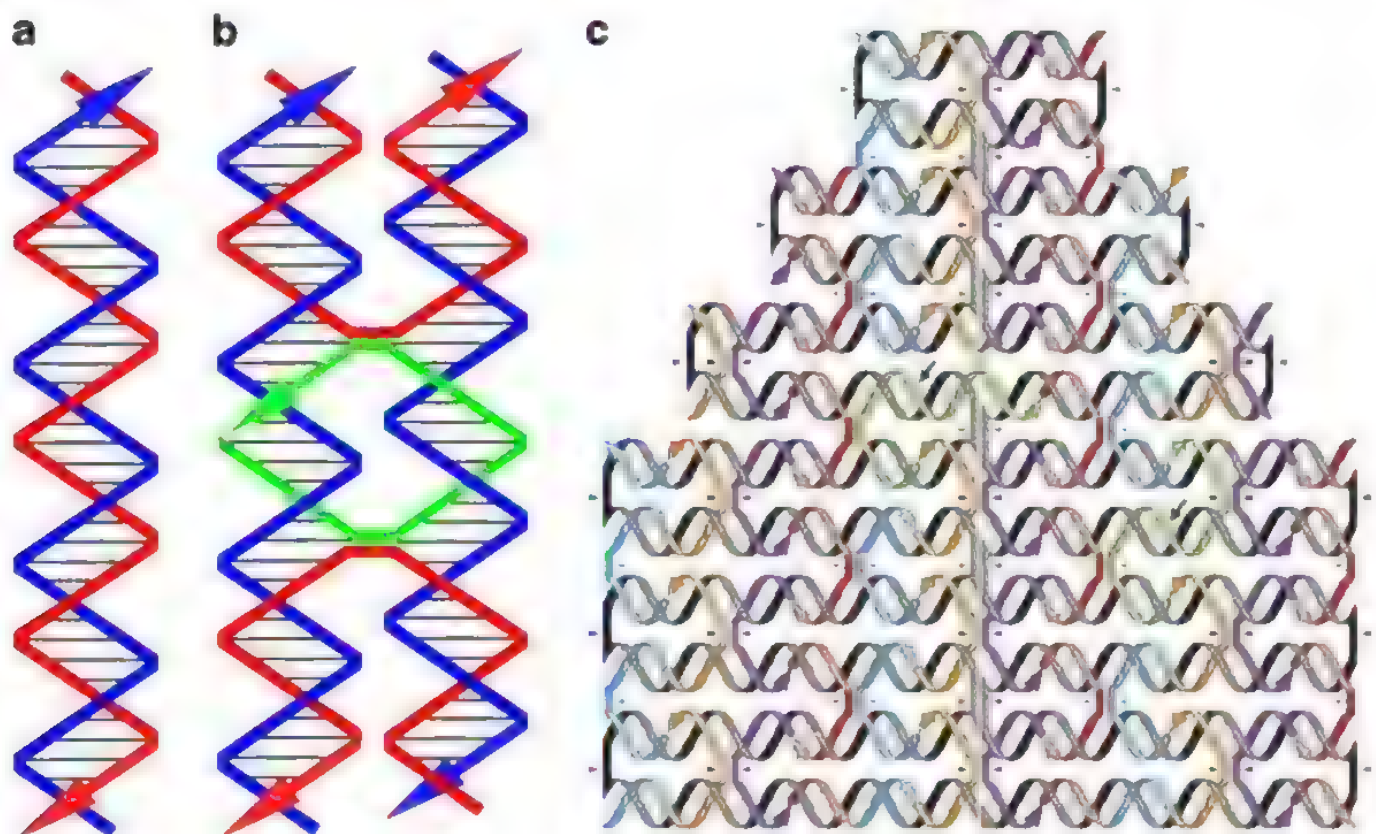
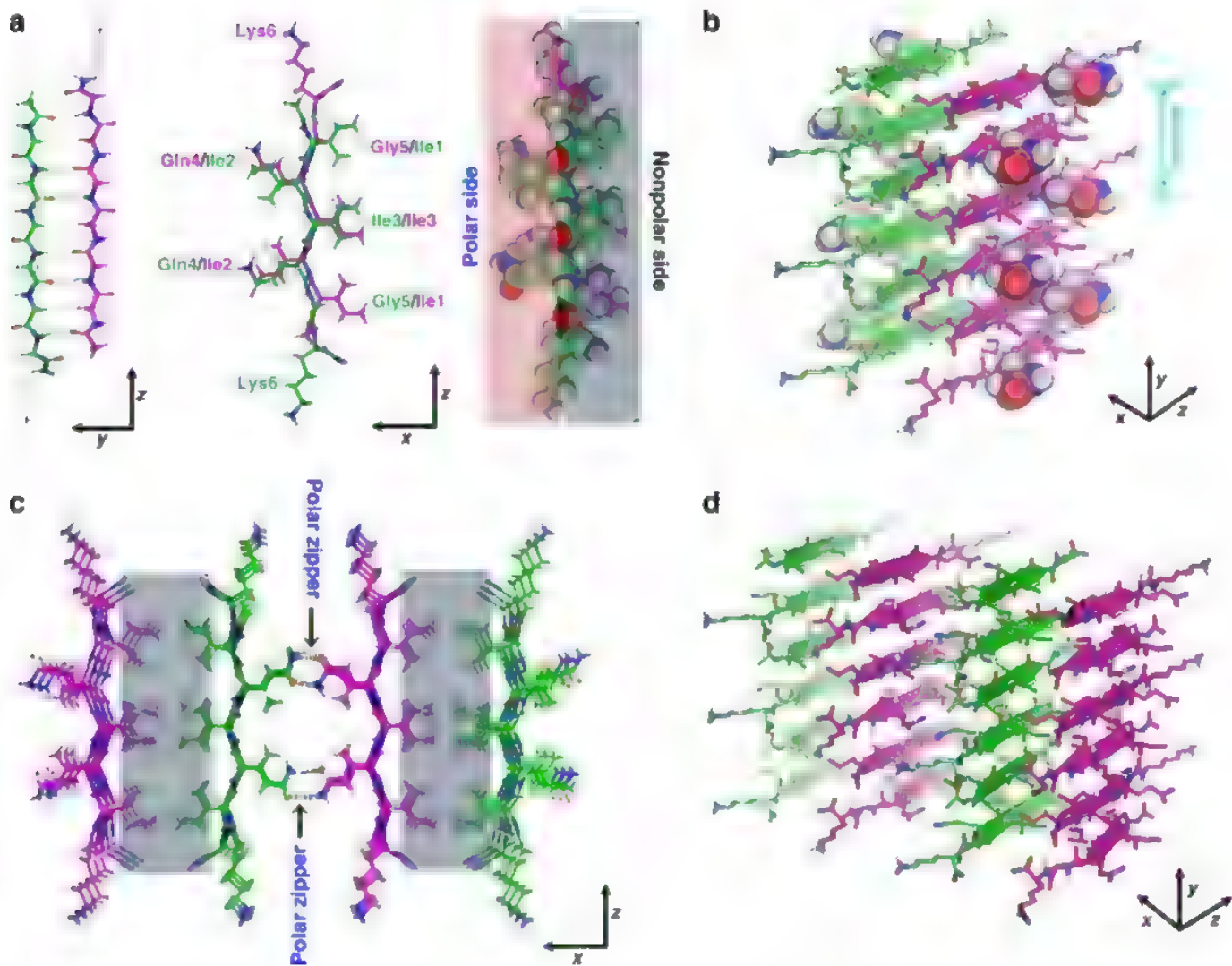
HOMO: -4.48 eV



HOMO: -4.23 eV

**c****(a)****(b)**





Duplex



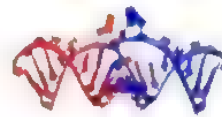
Hairpin



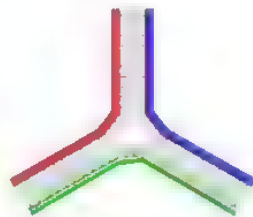
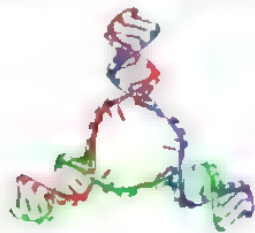
90°-kink



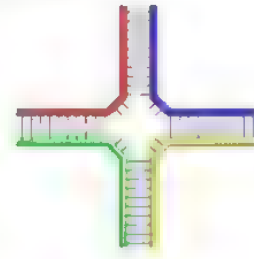
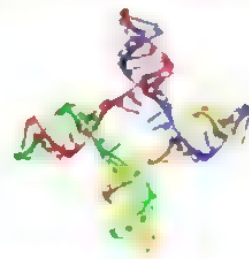
Kissing-loops (KL)



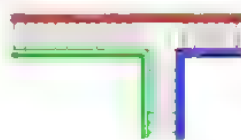
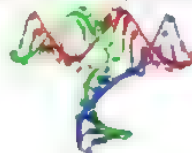
Open 3-way junction (o3WJ)



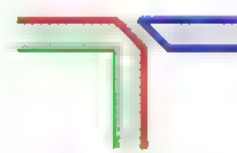
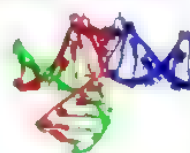
Open 4-way junction (o4WJ)



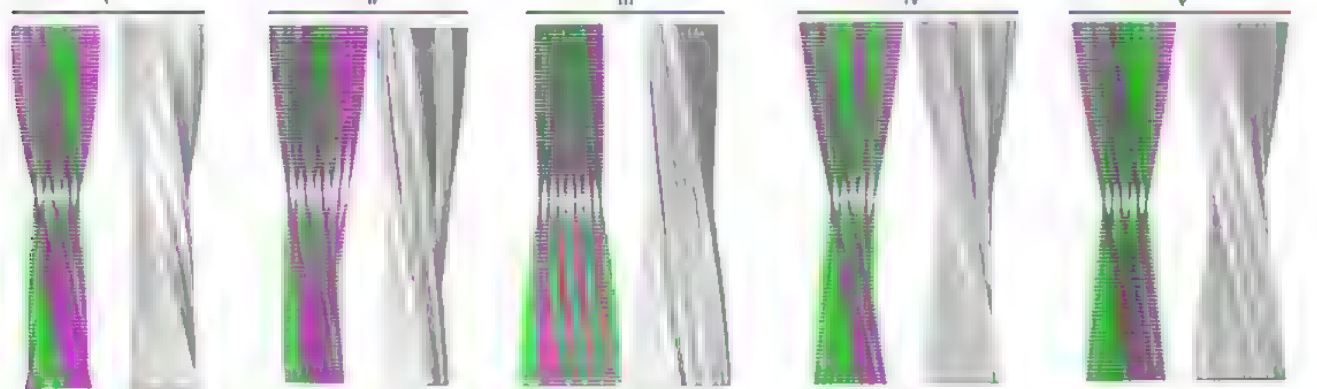
Stacked 3-way junction (s3WJ)



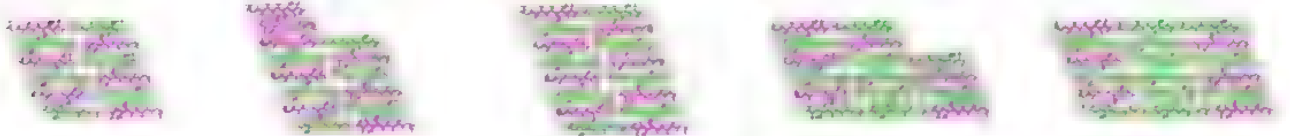
3-way loops (3WL)



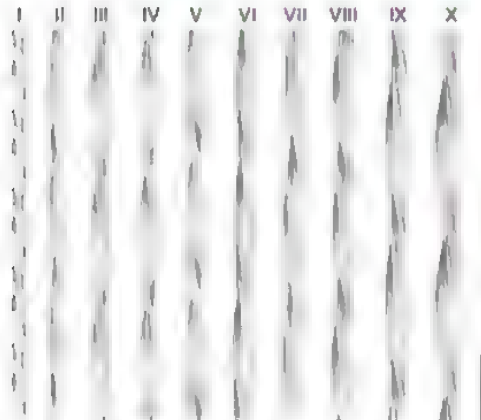
**a**



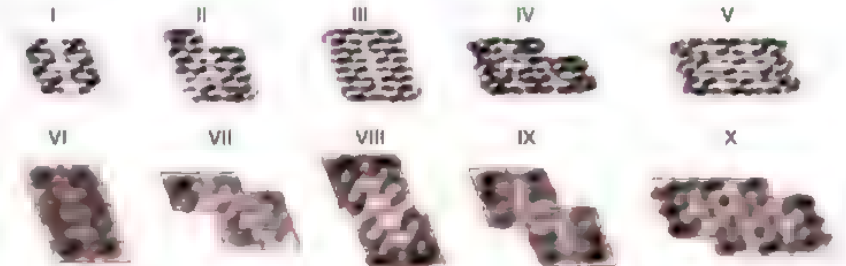
**b**



**a**

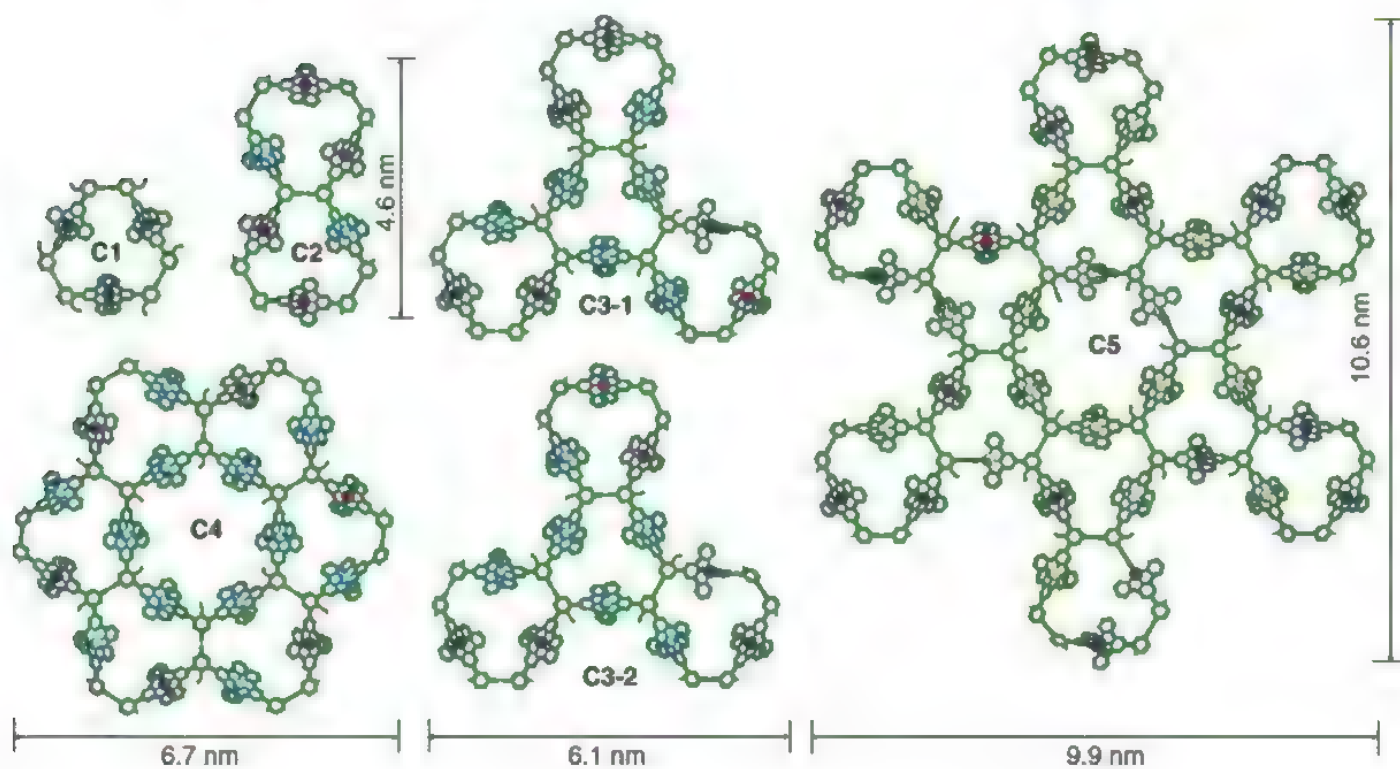
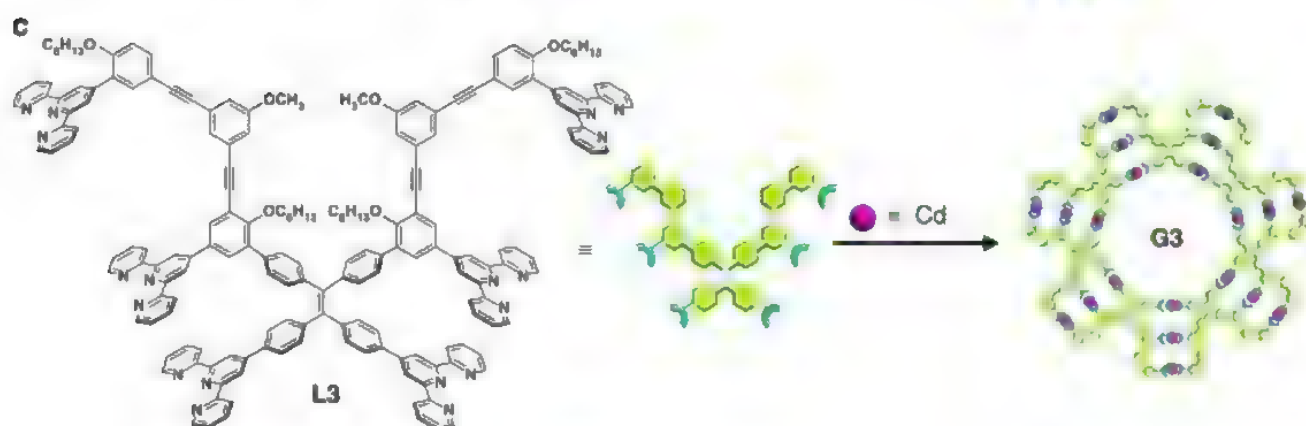
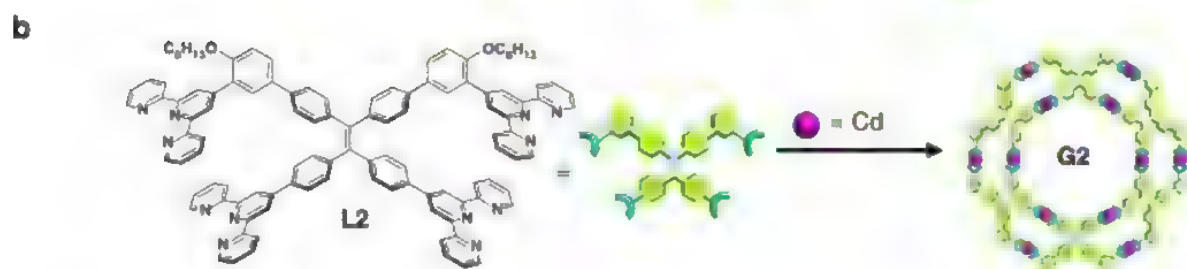
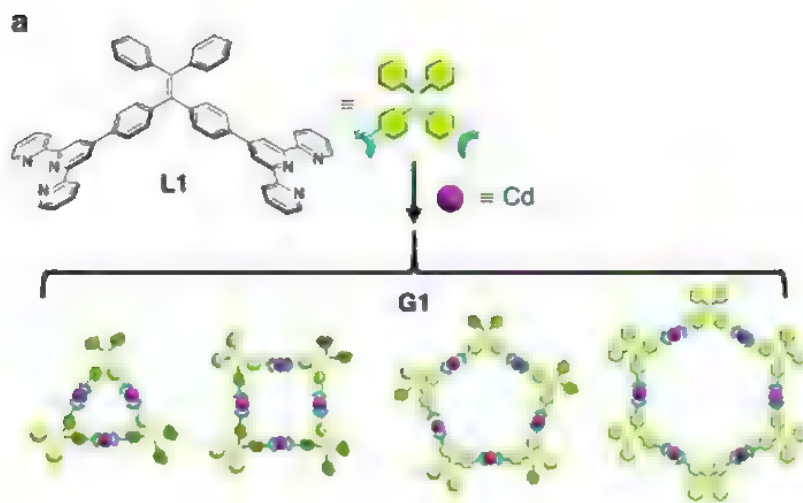


**b**

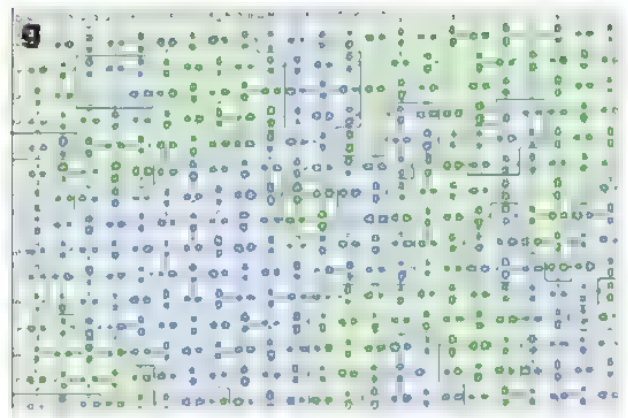
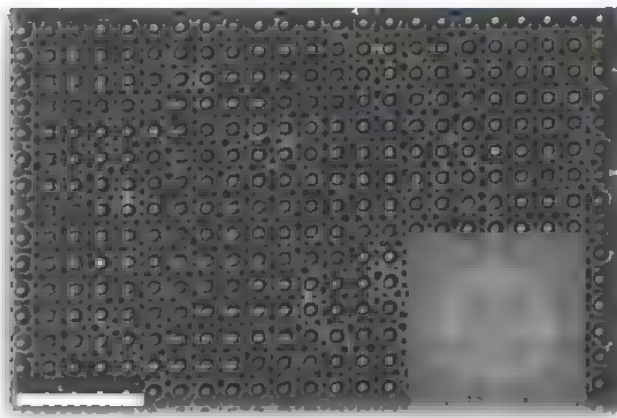
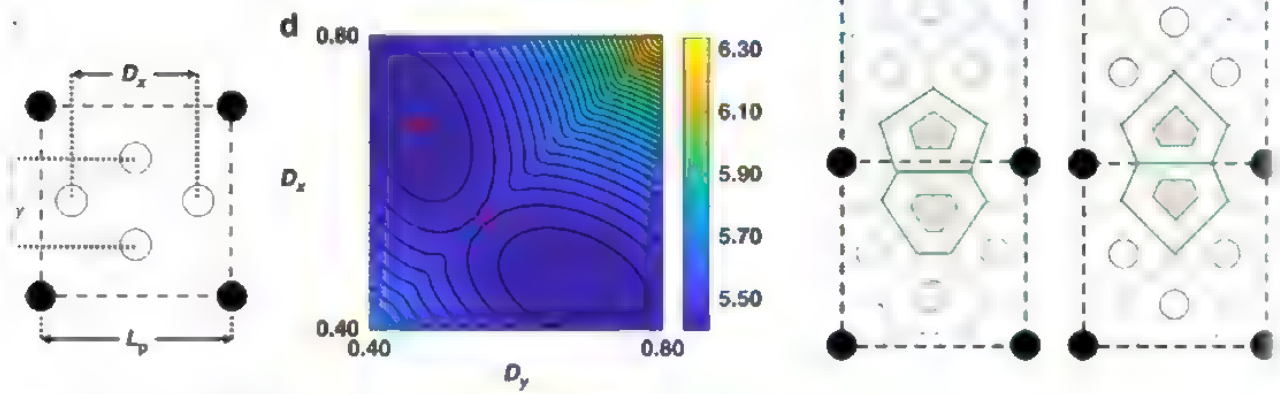
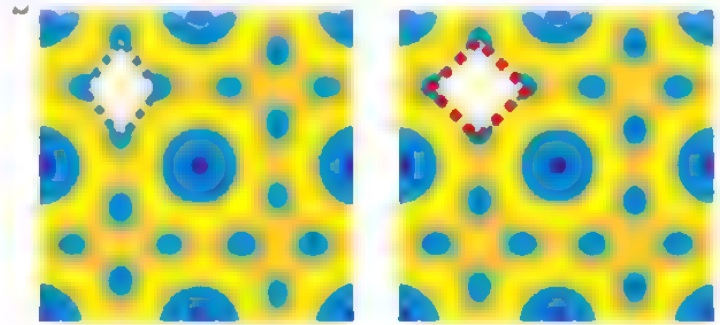
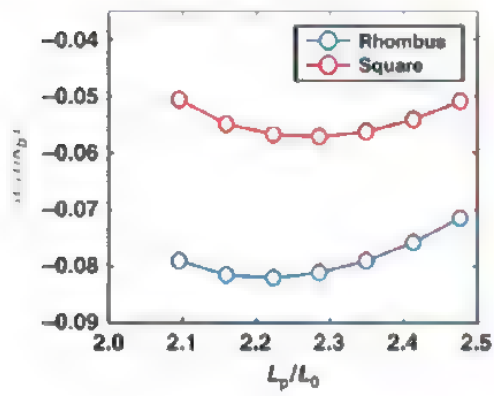
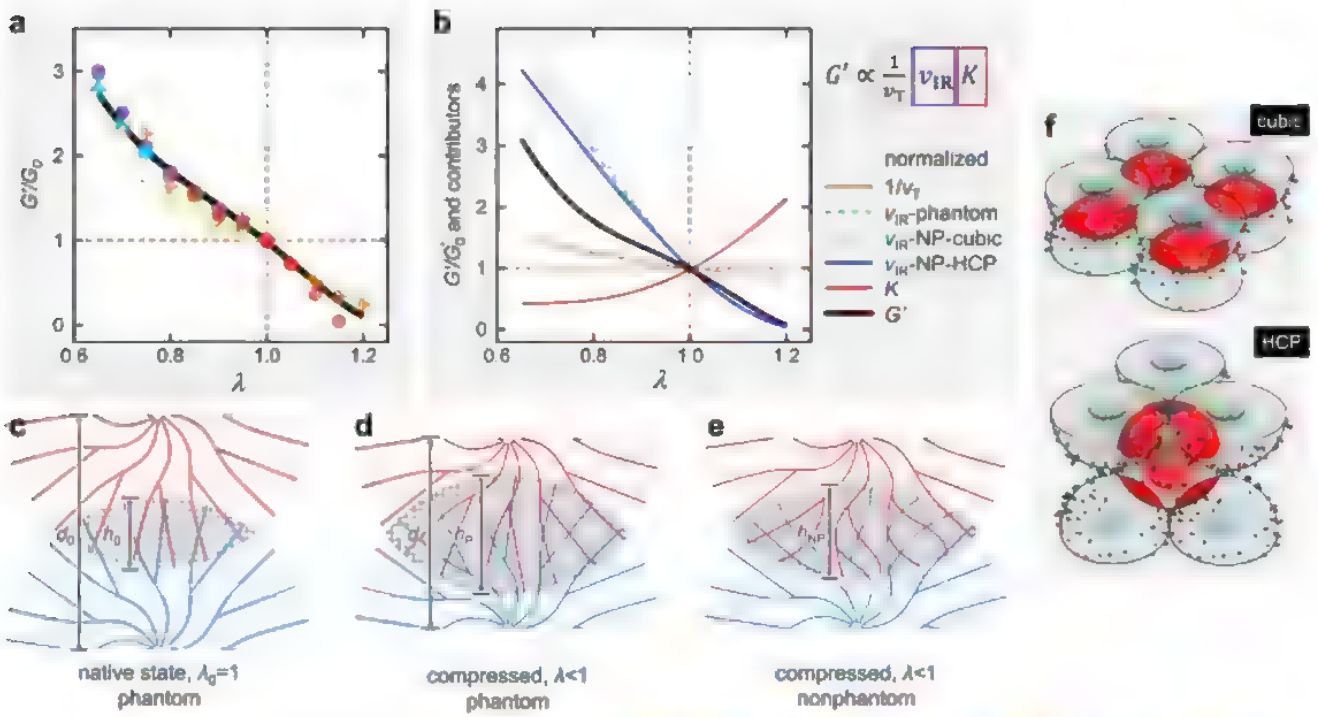


**c**

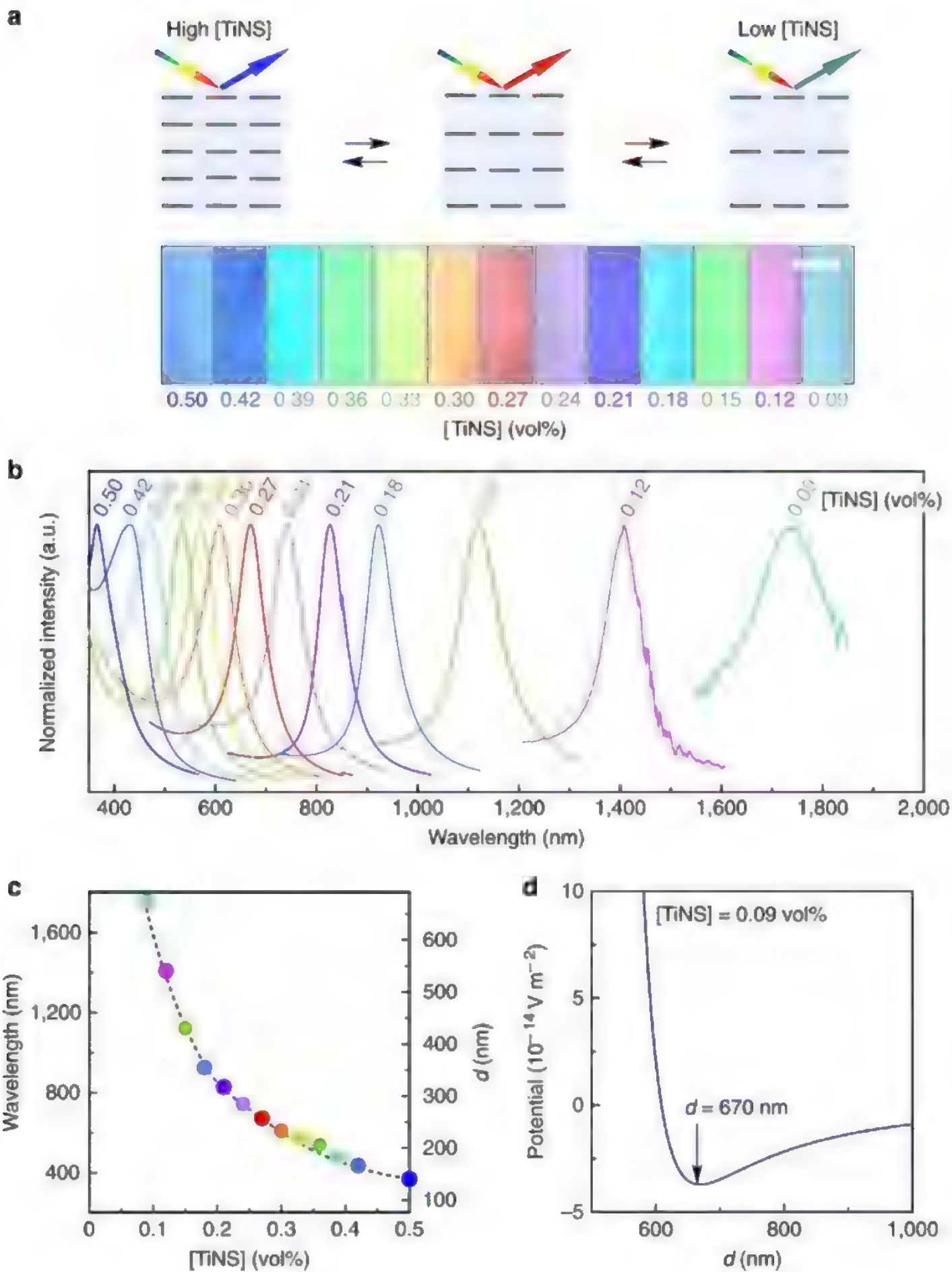


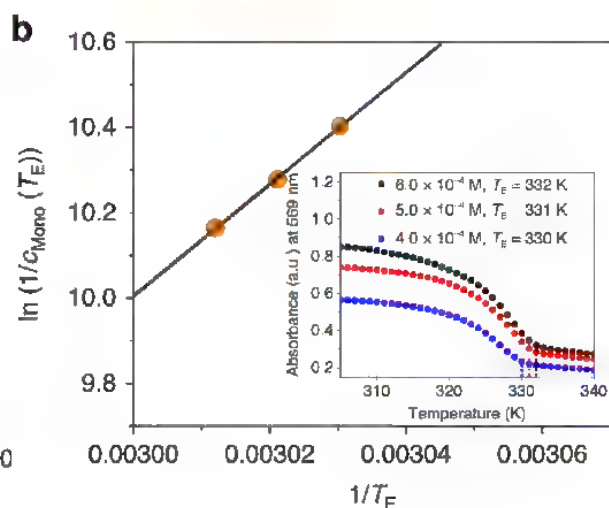
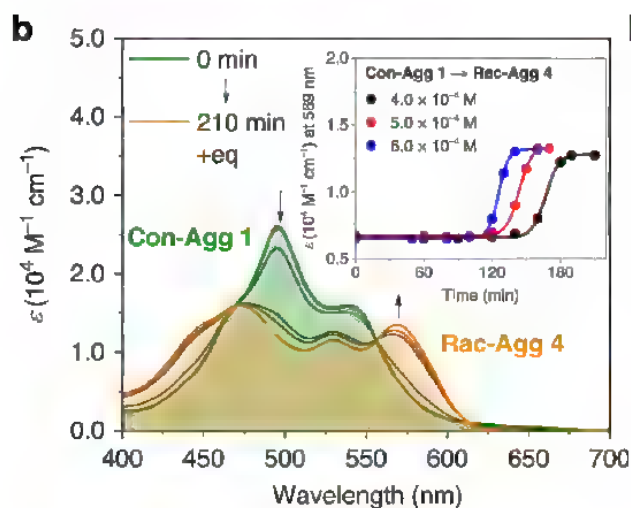
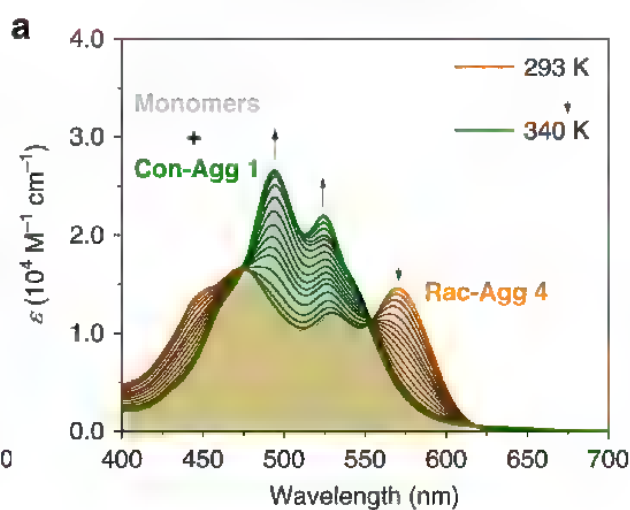
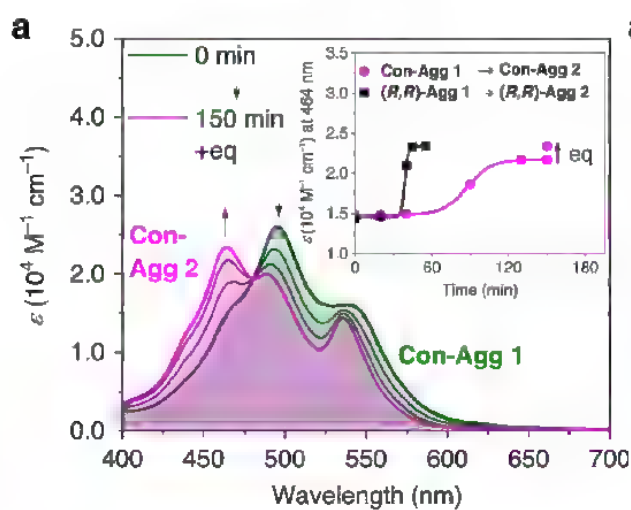
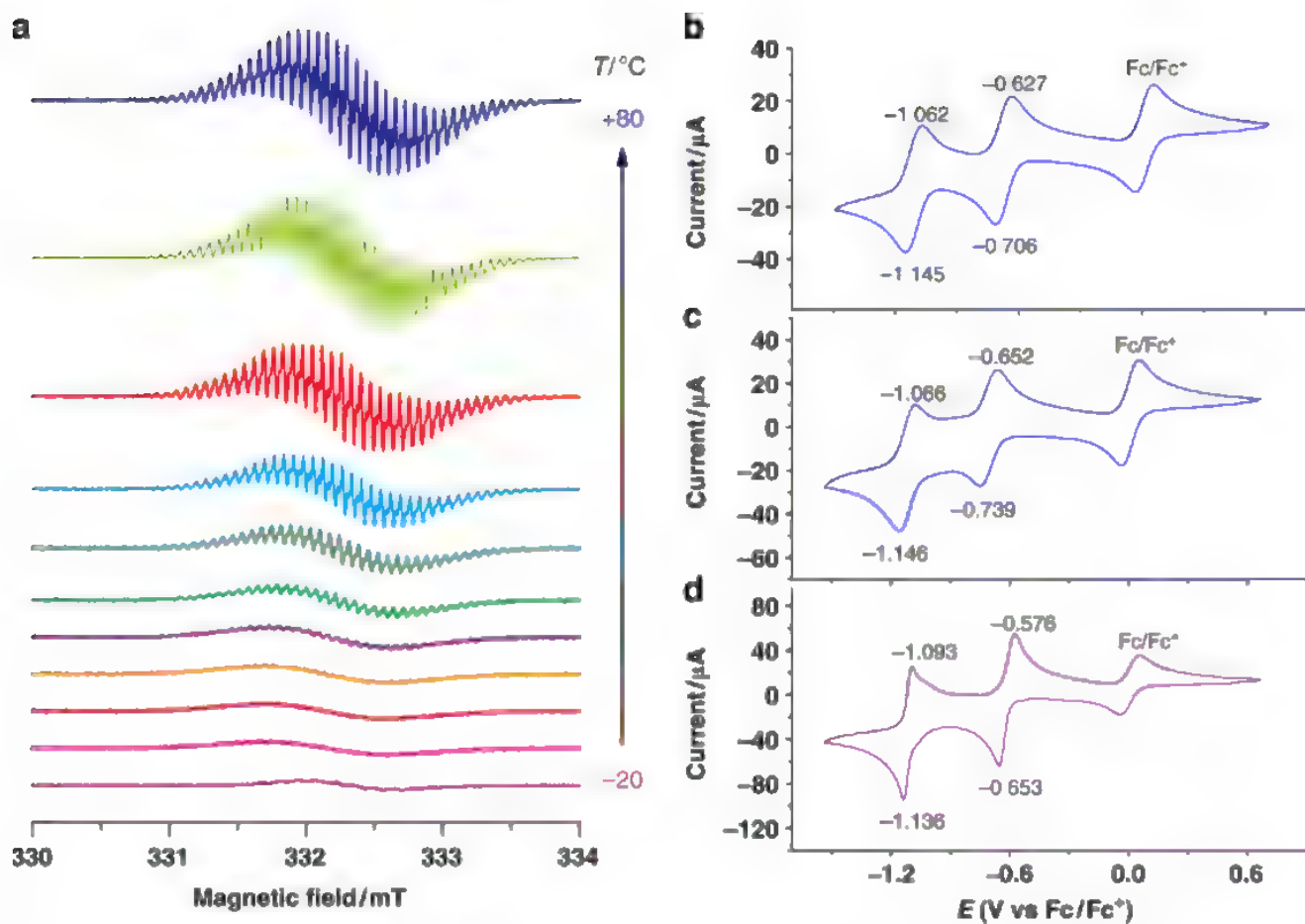


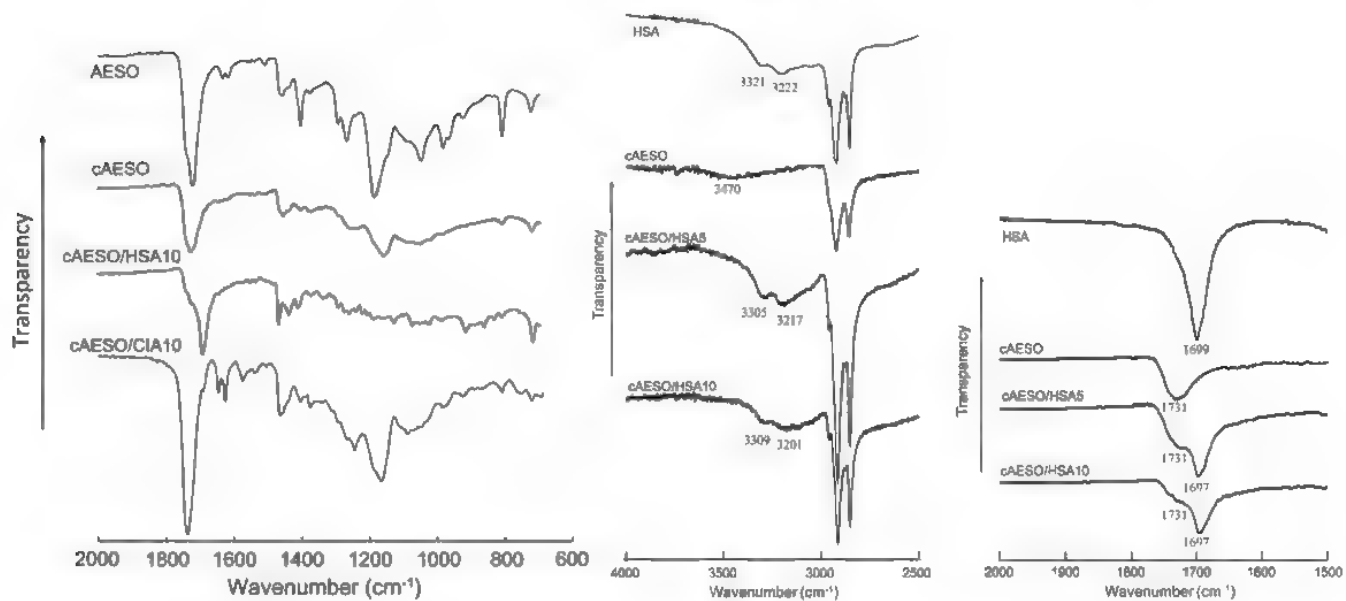
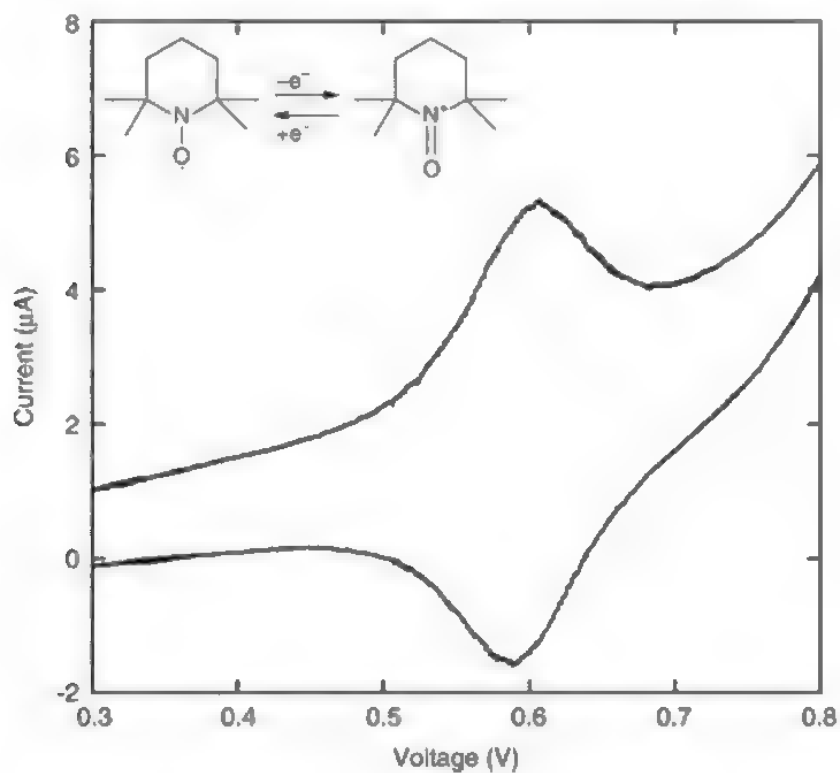
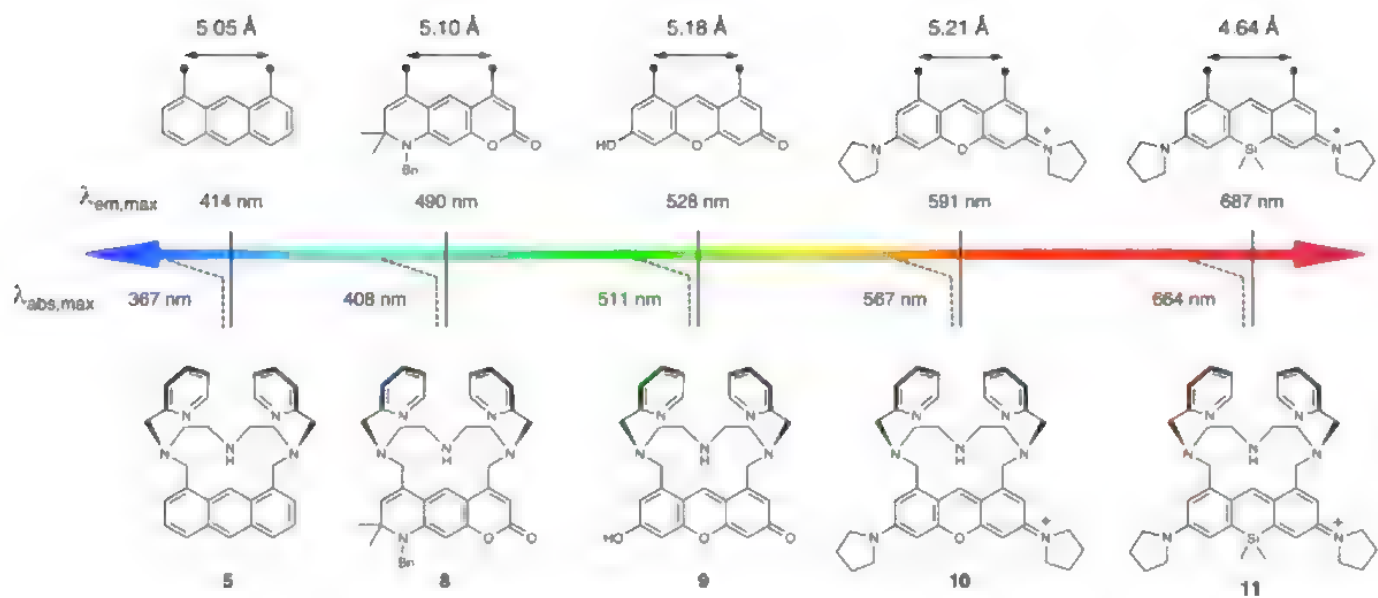


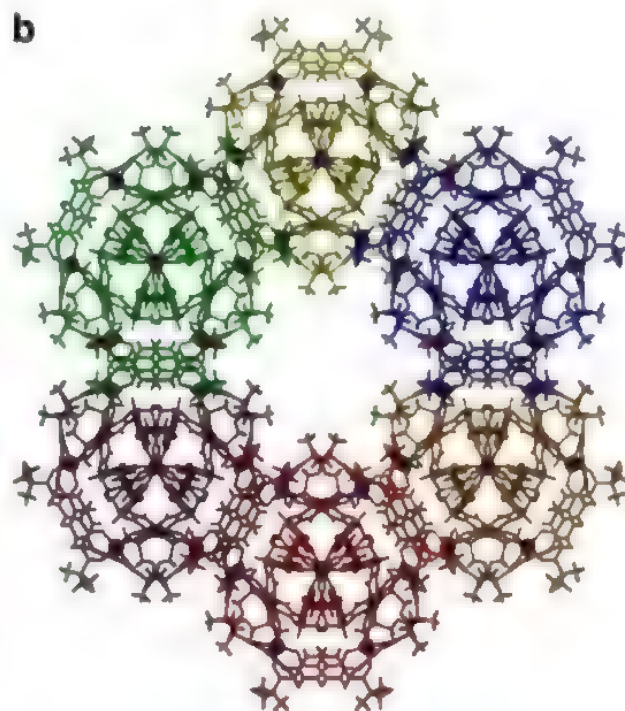
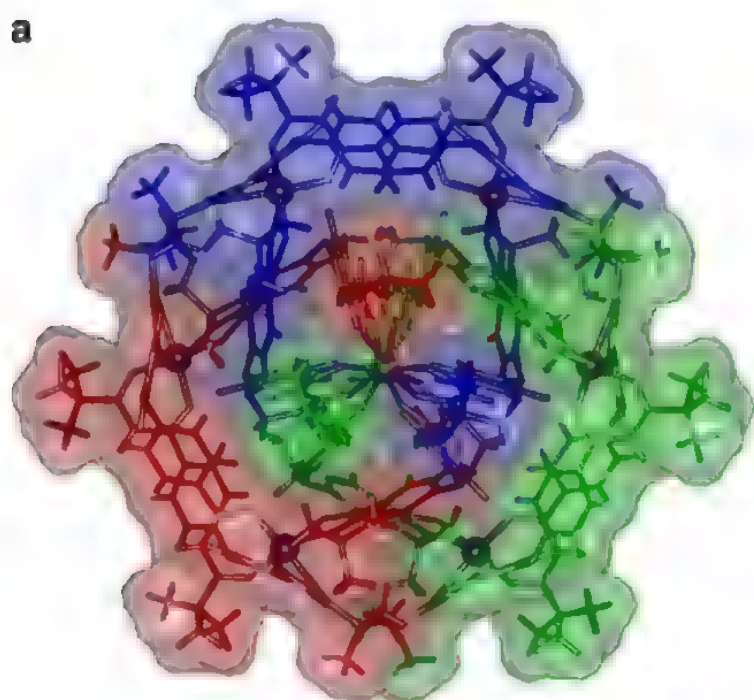
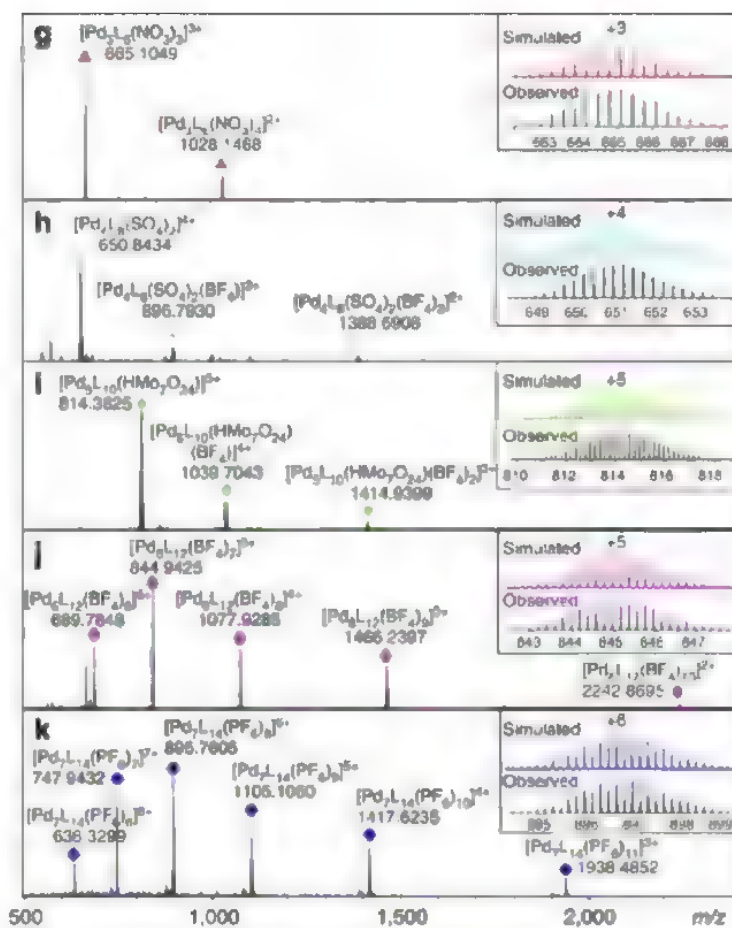
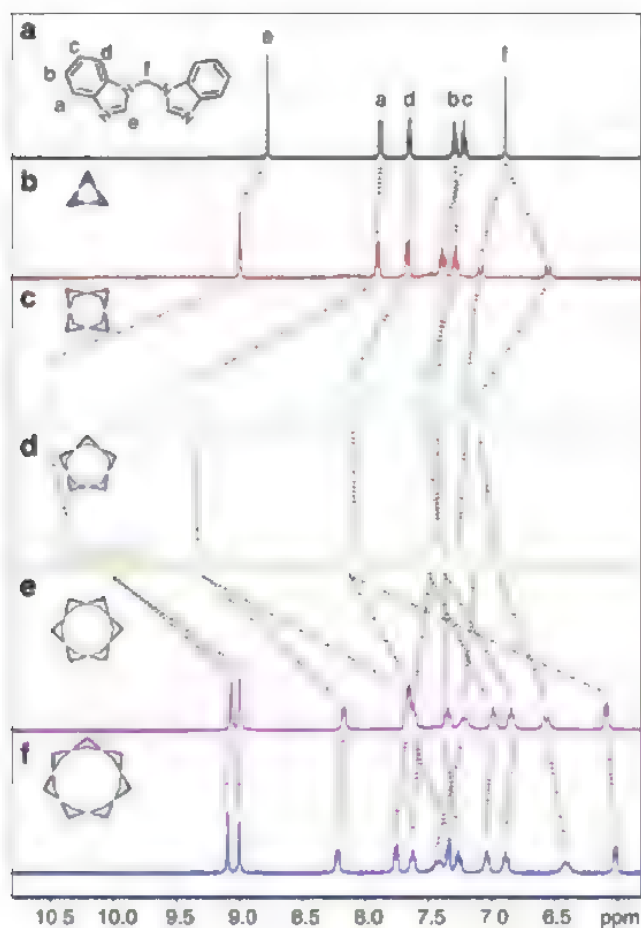




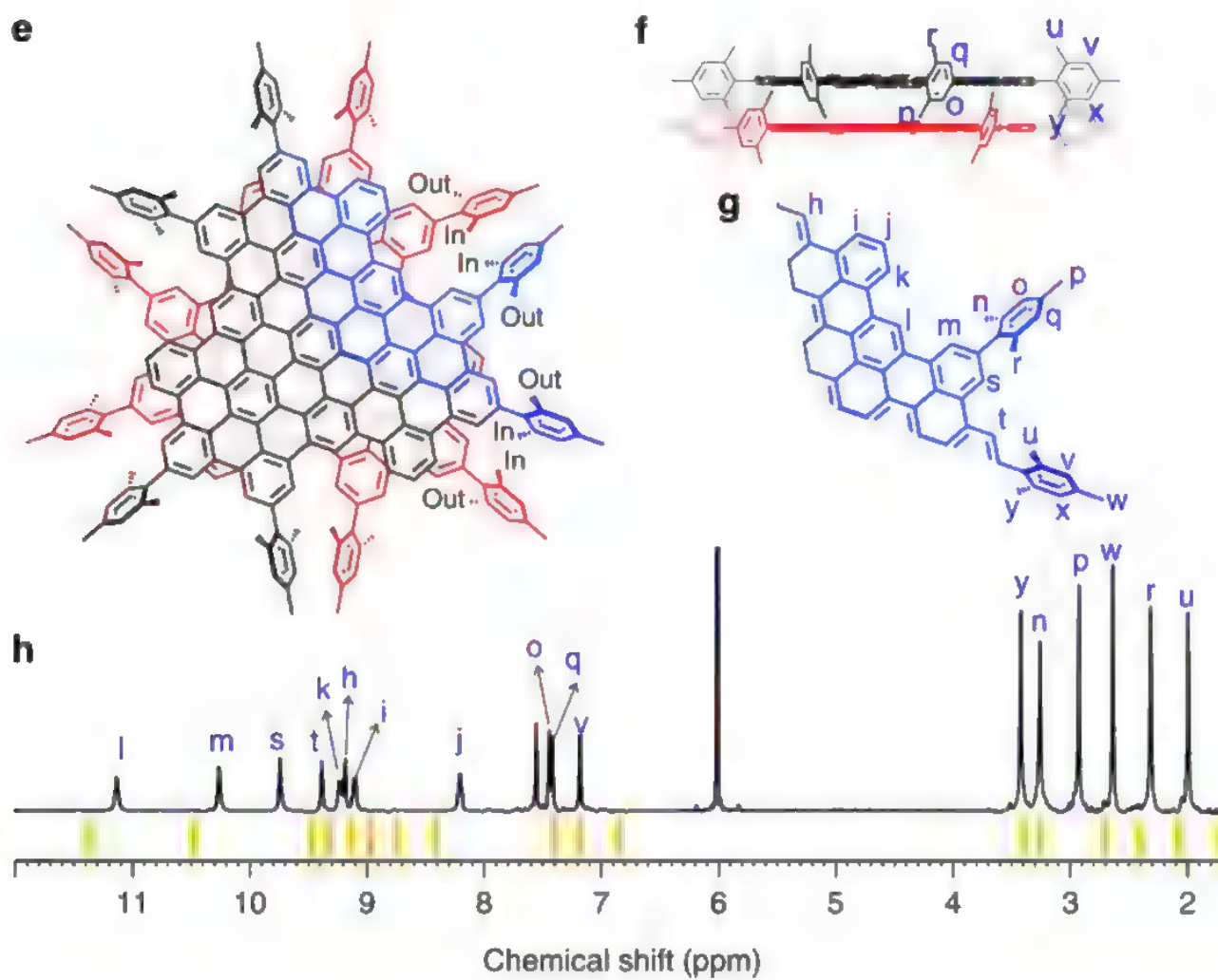
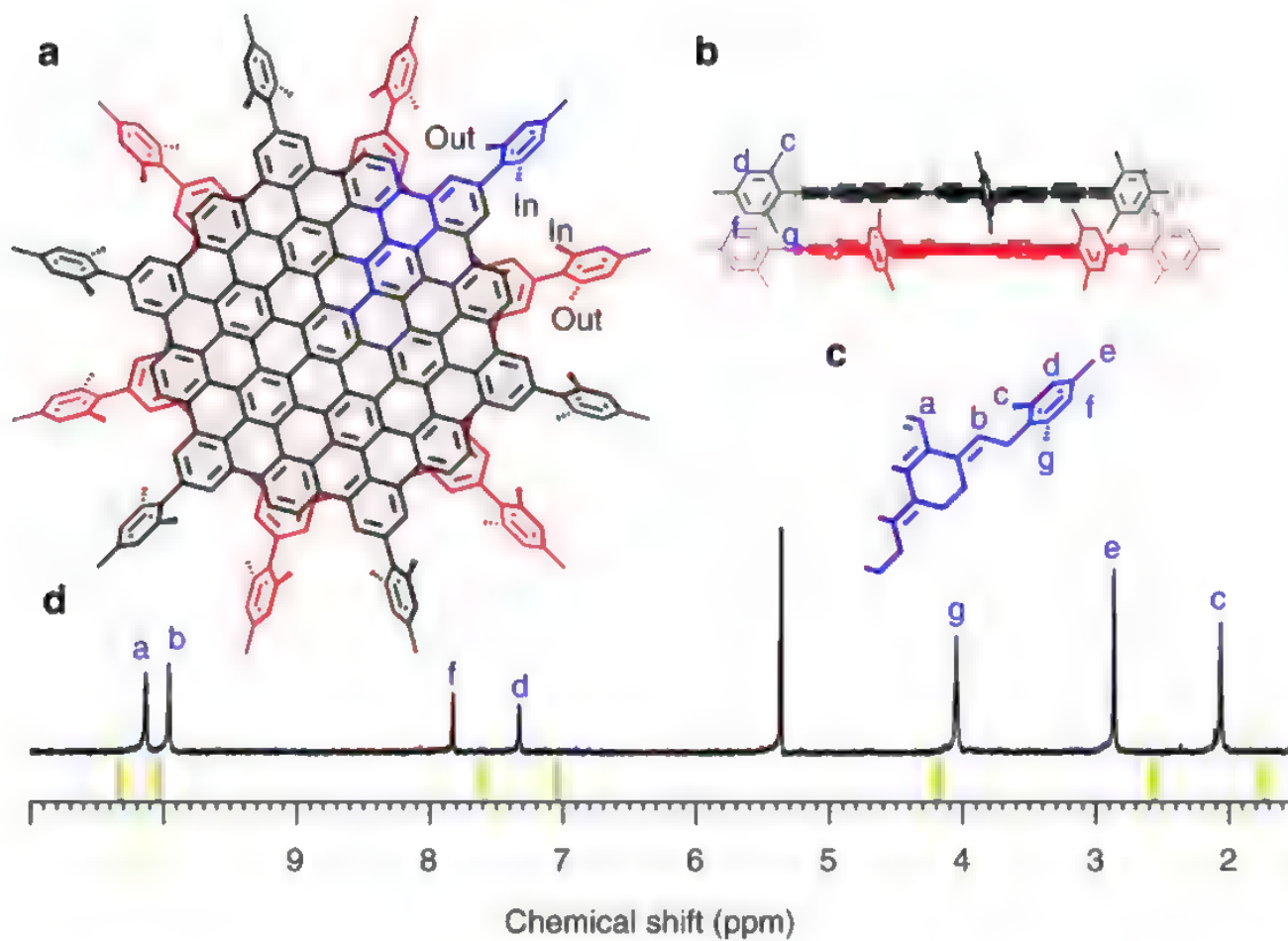


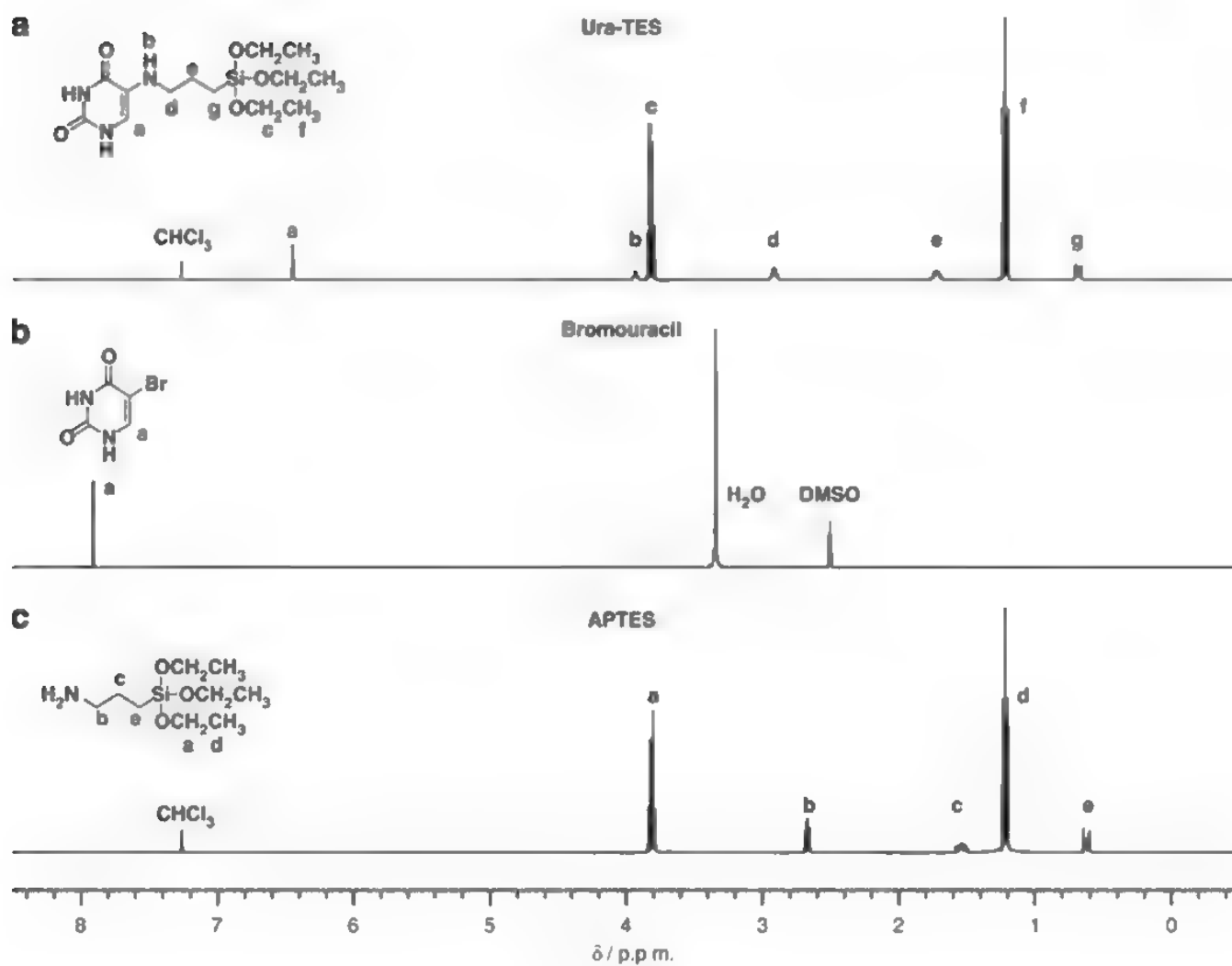
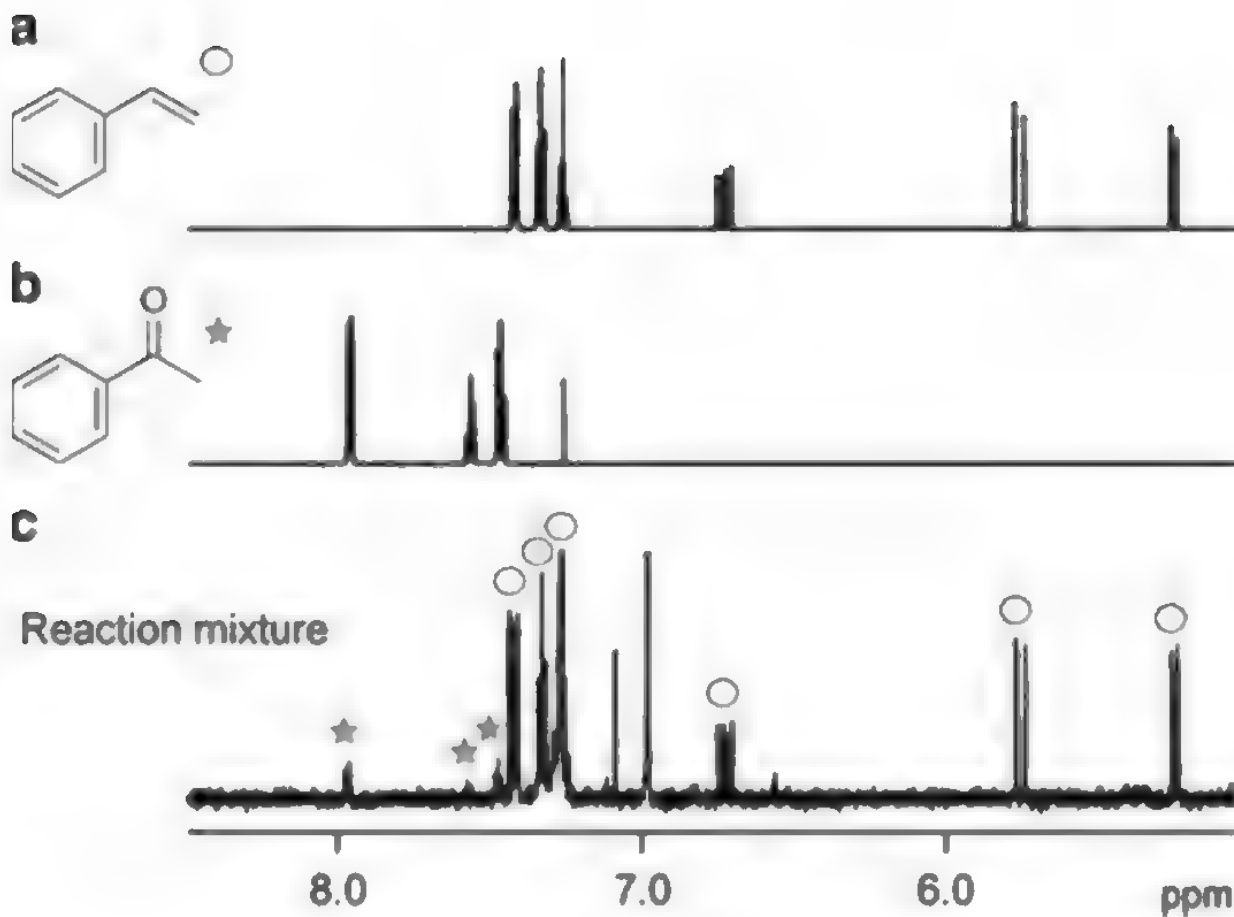


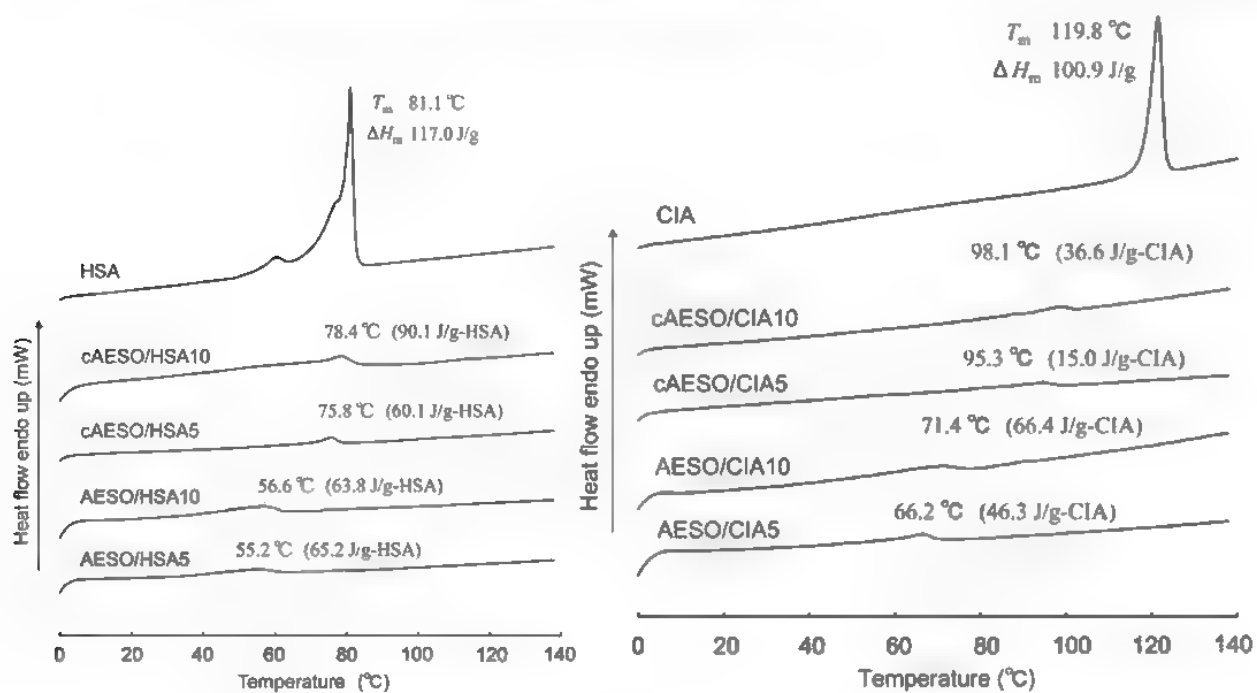
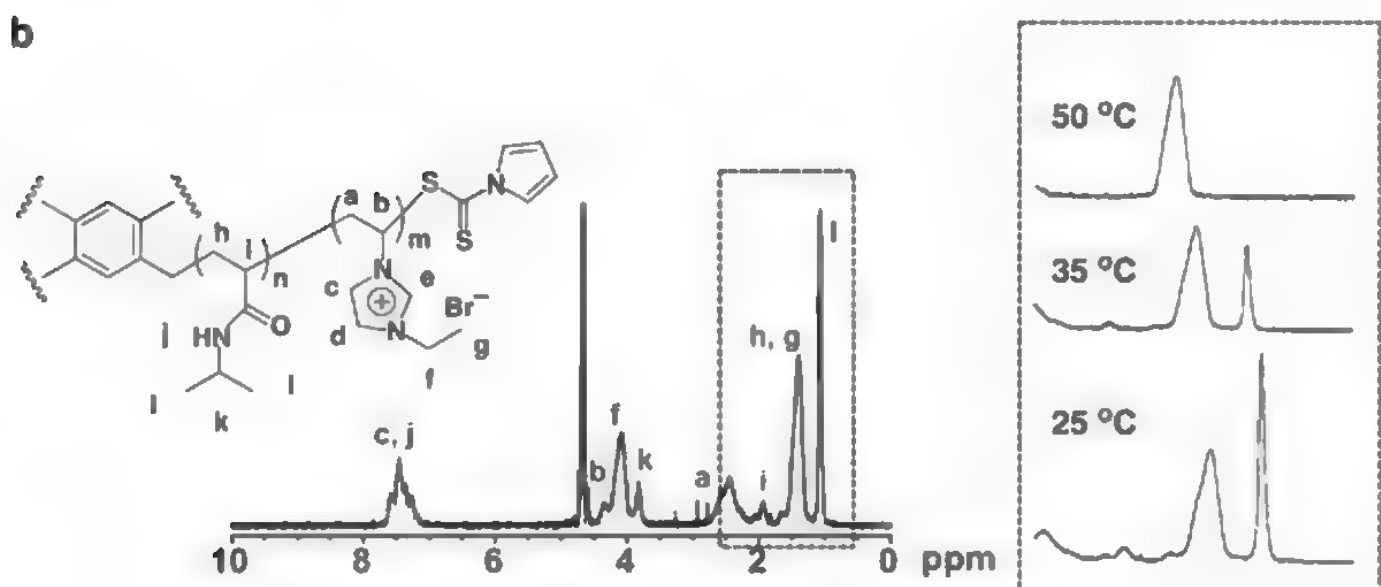
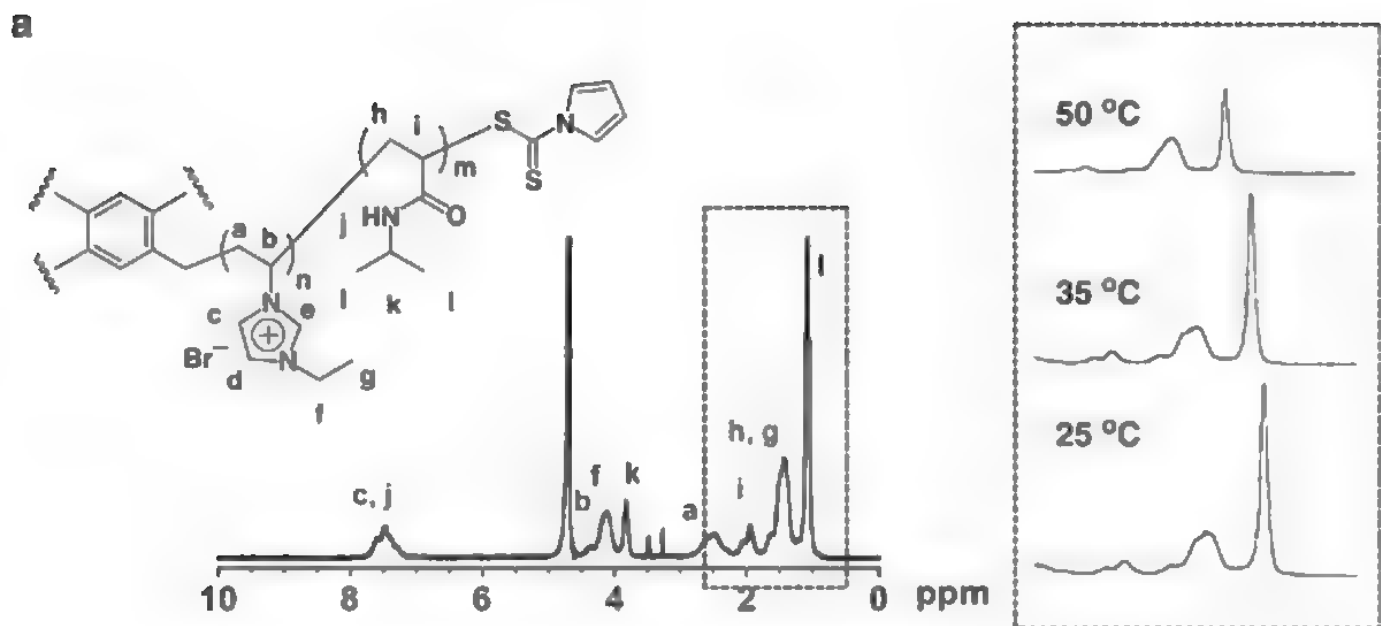


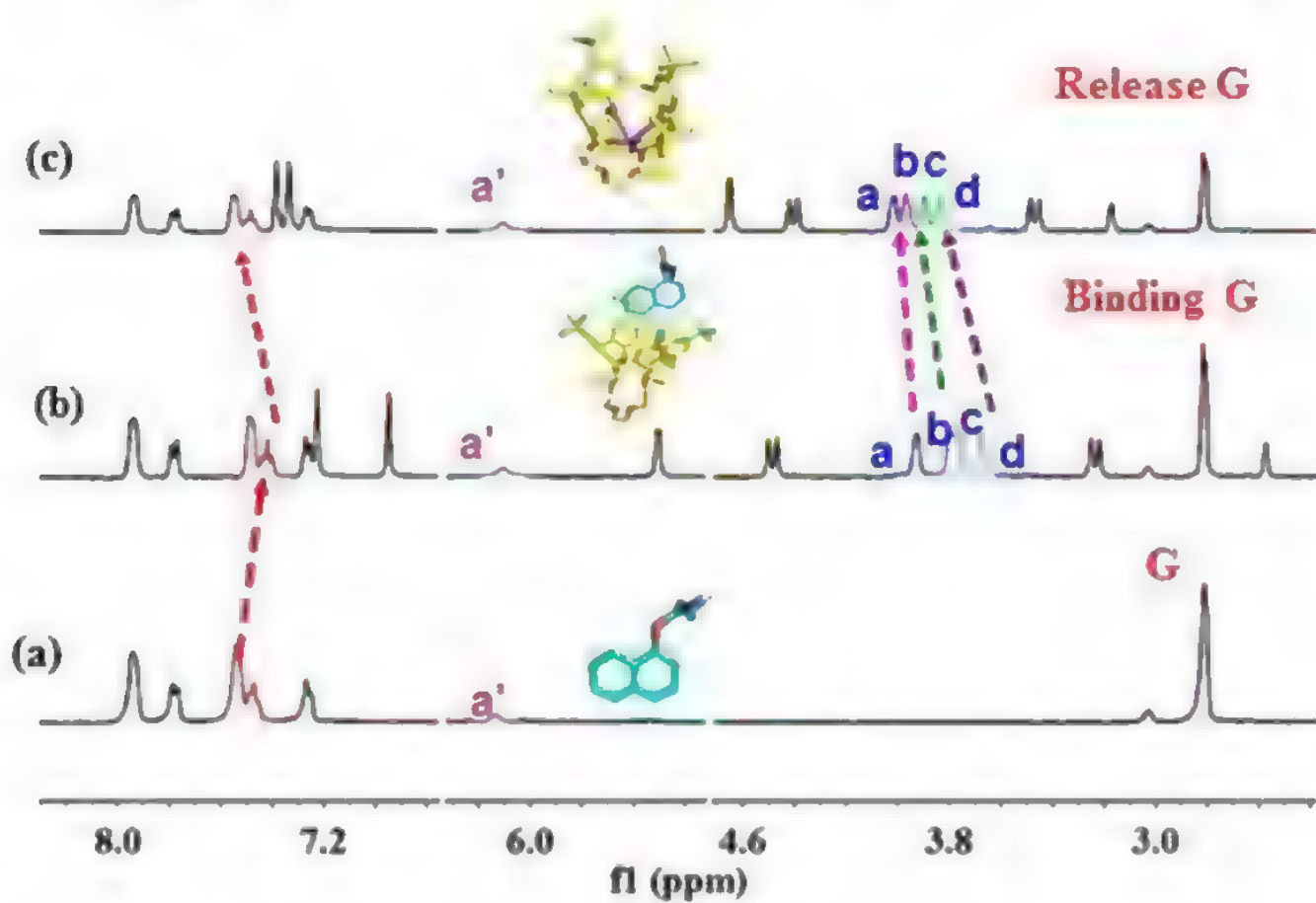
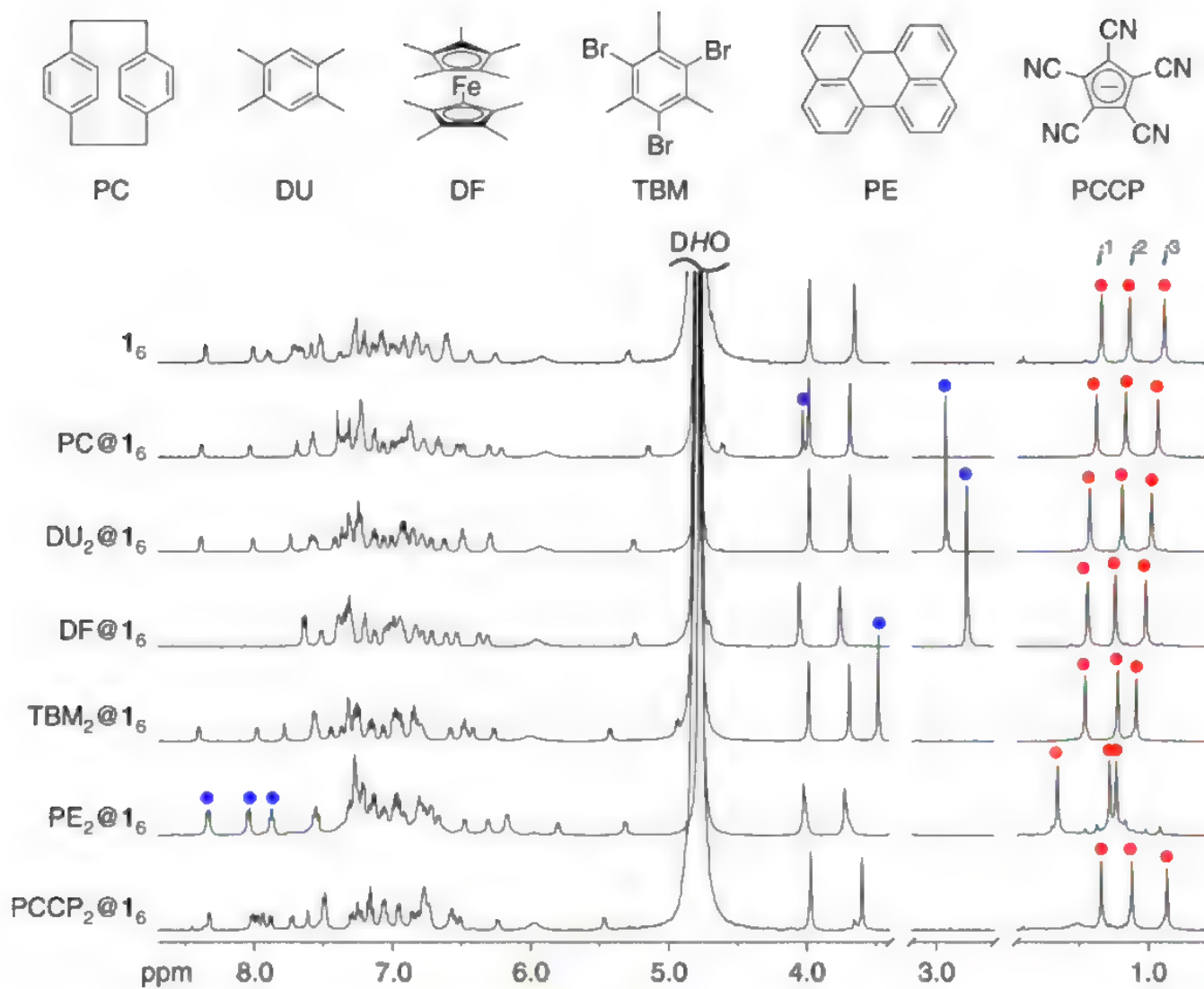




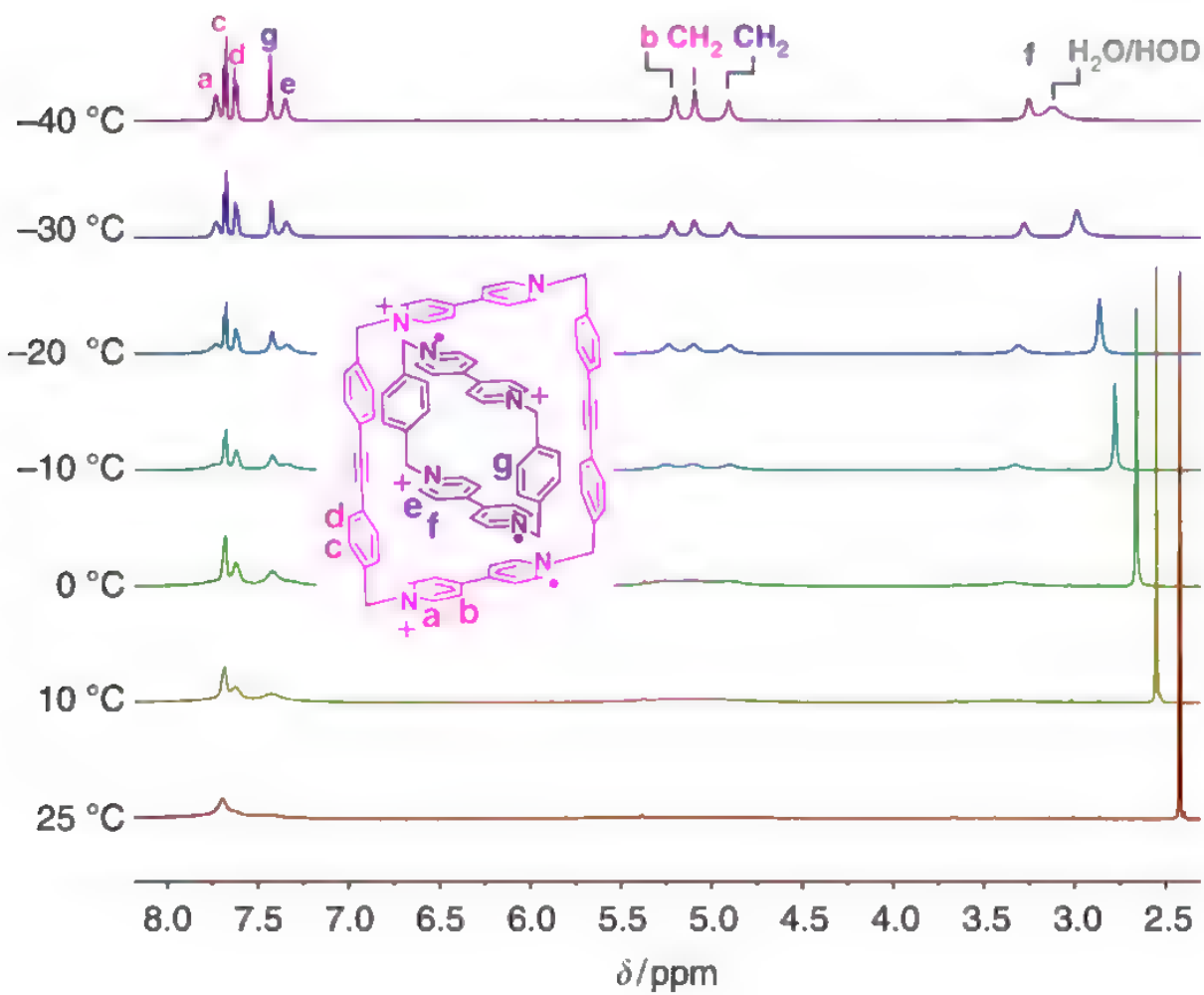
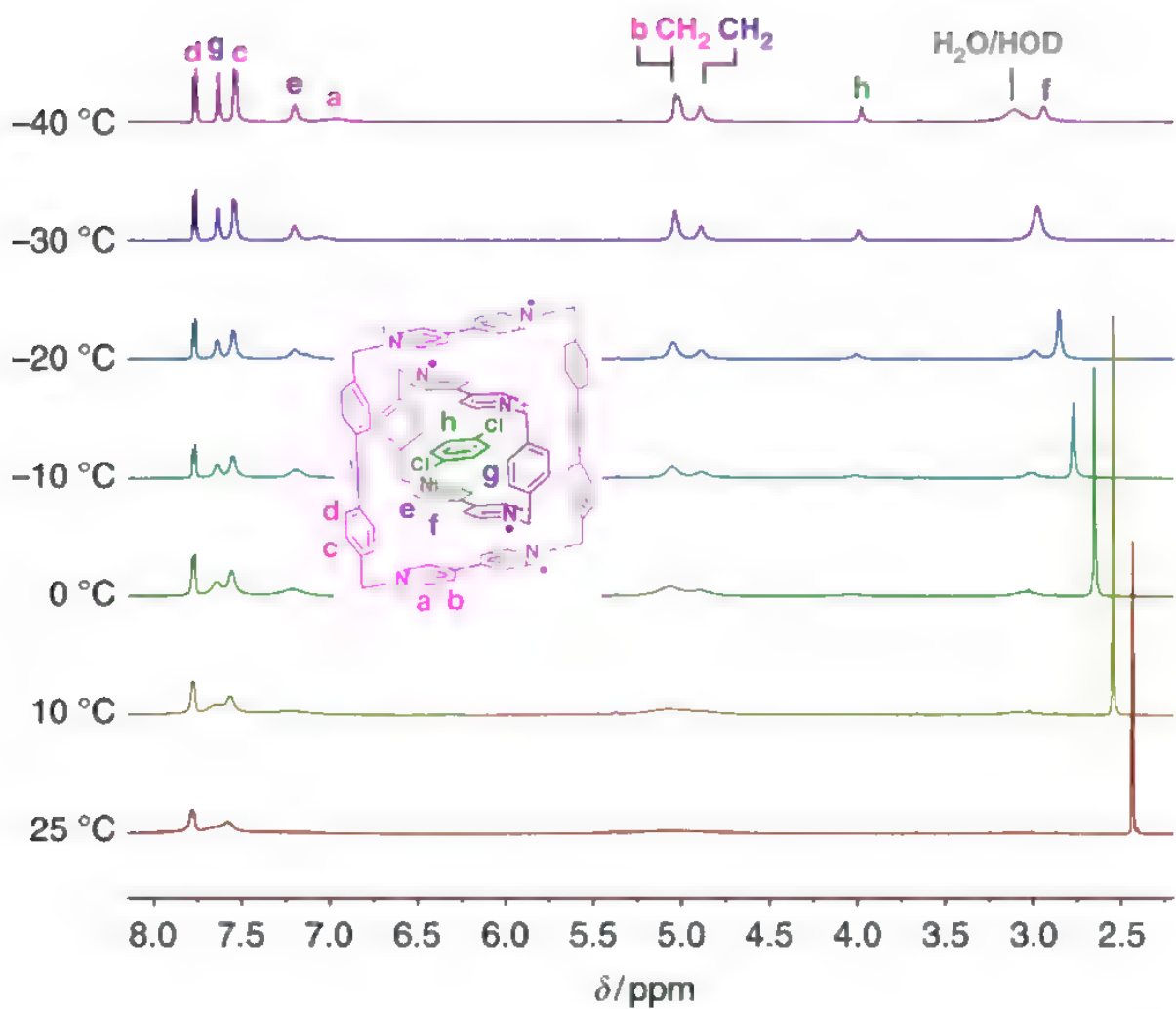


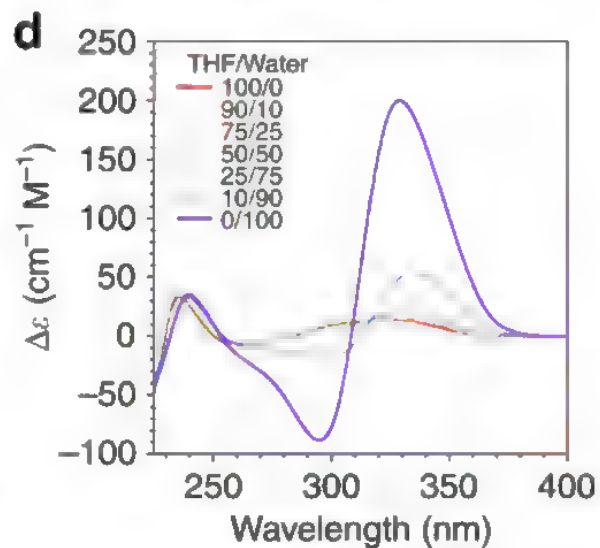
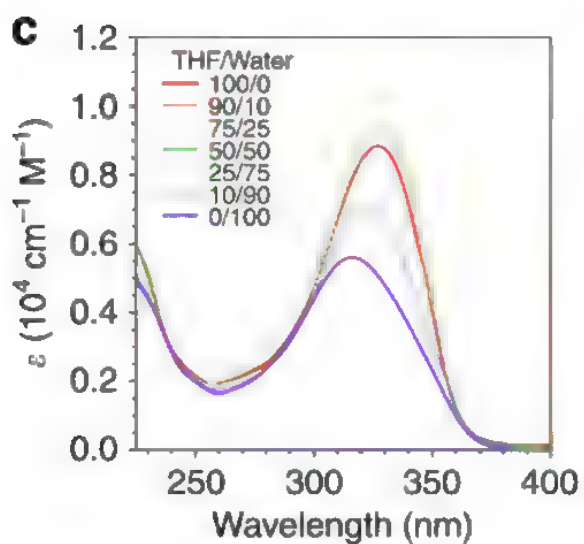
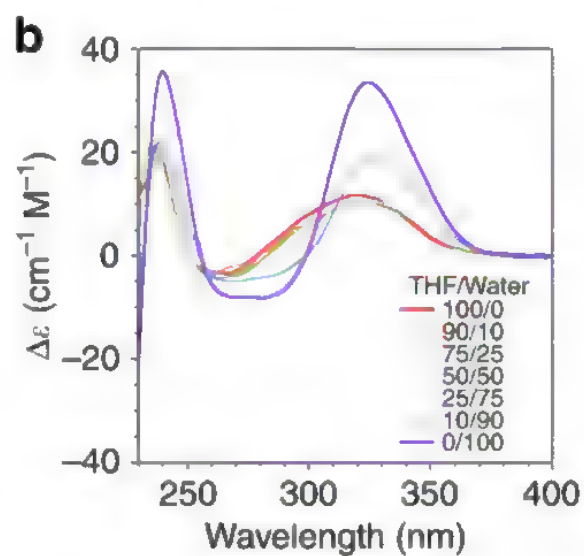
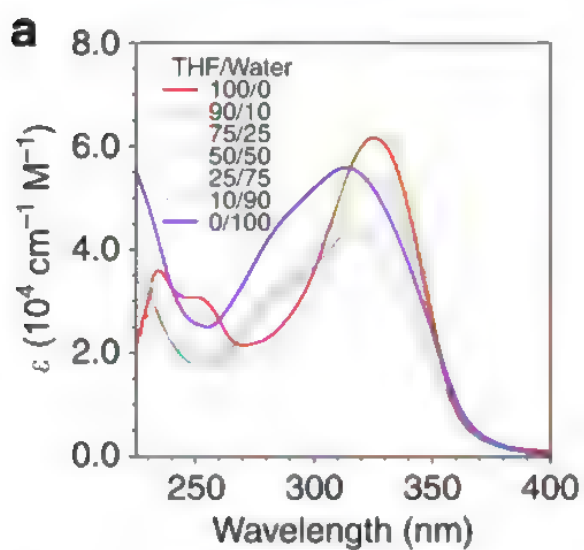
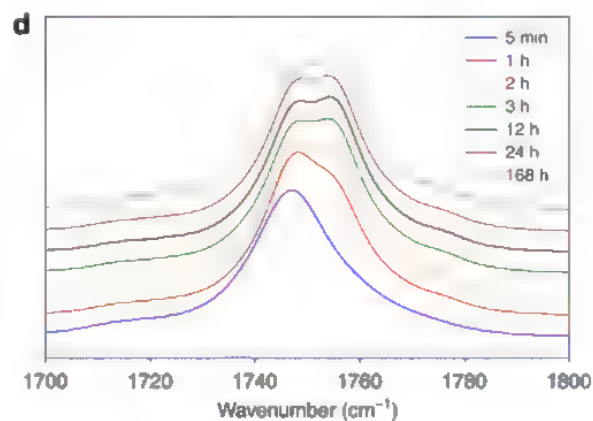
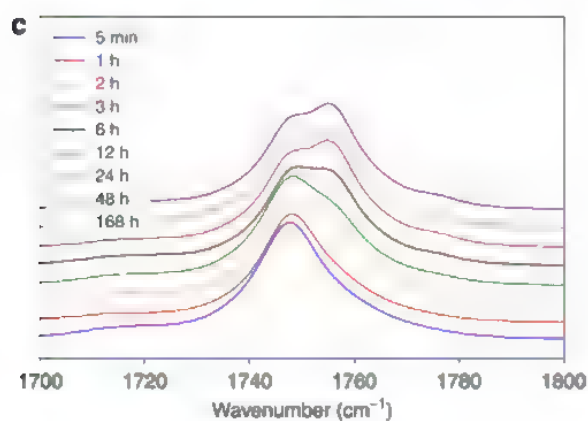
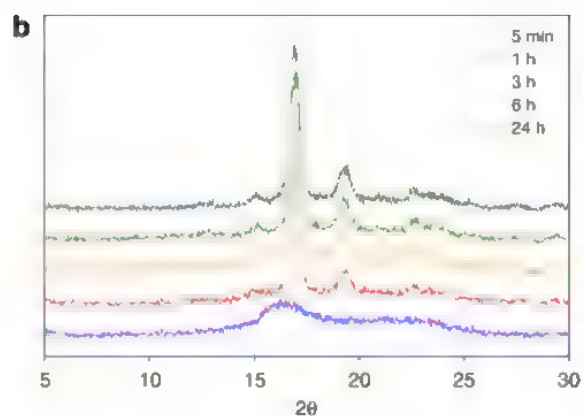
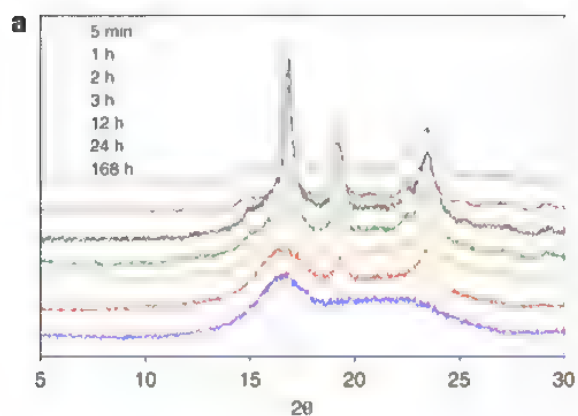


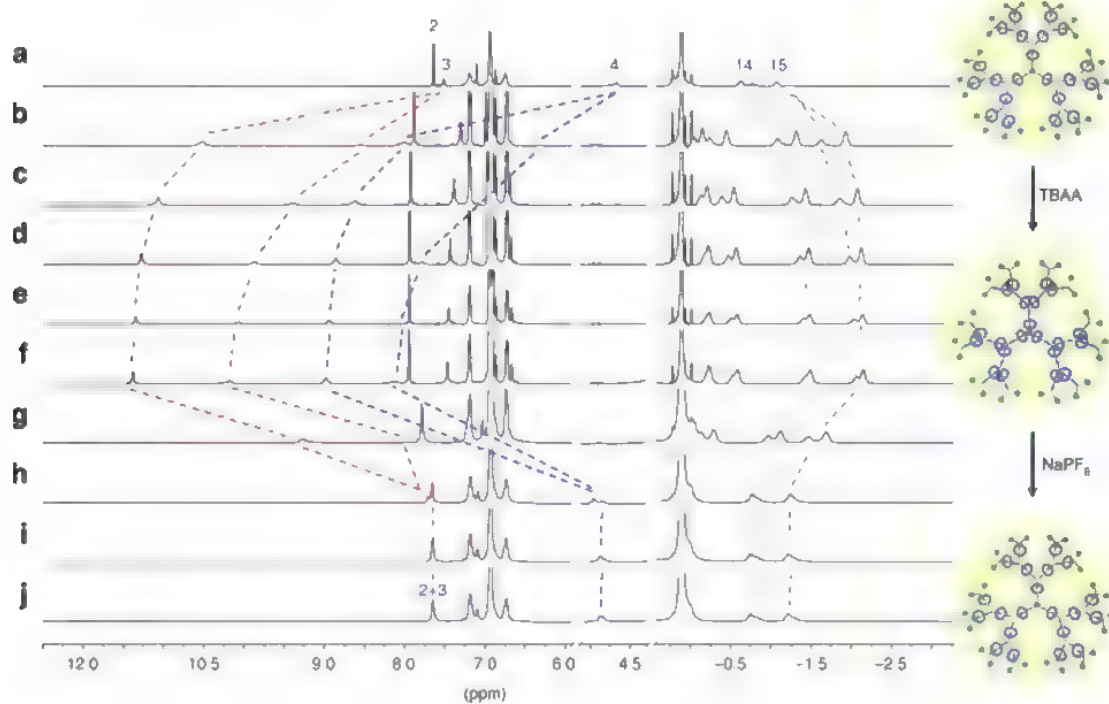
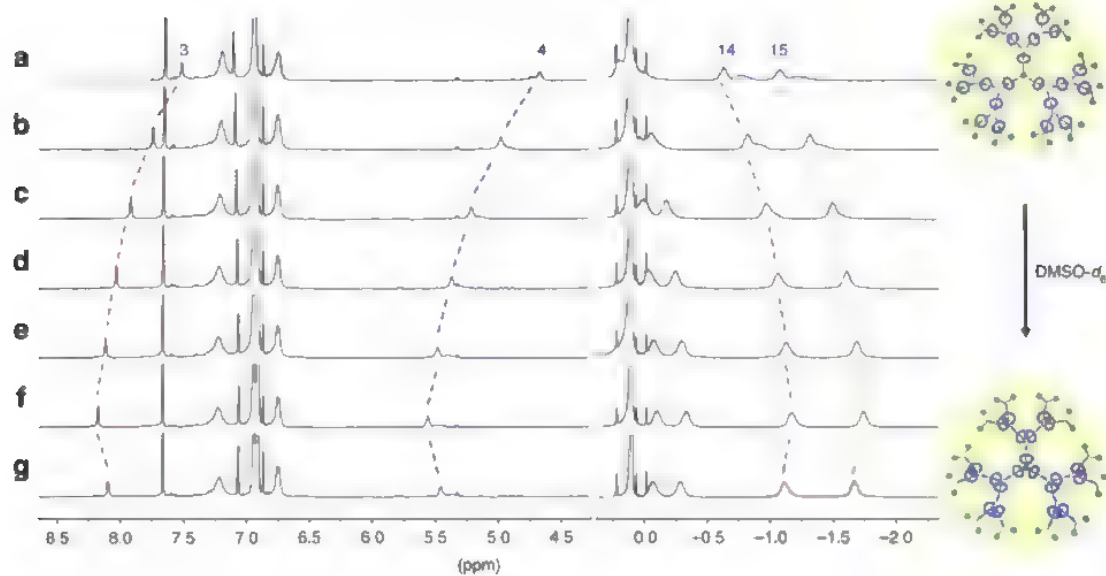
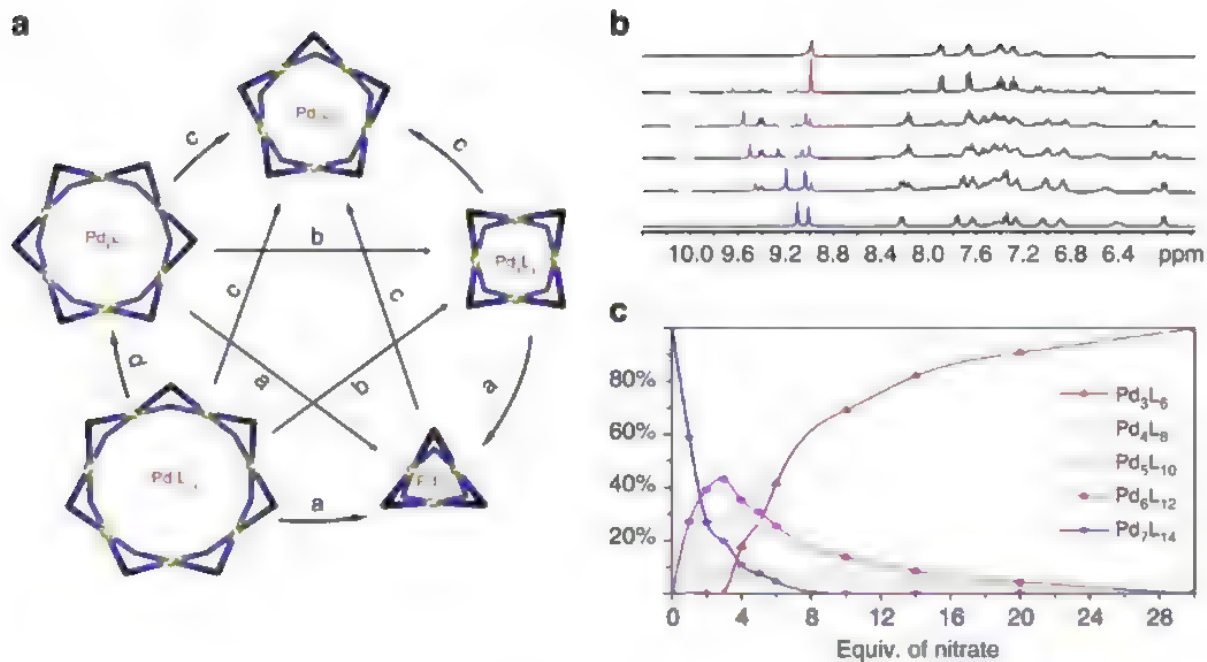


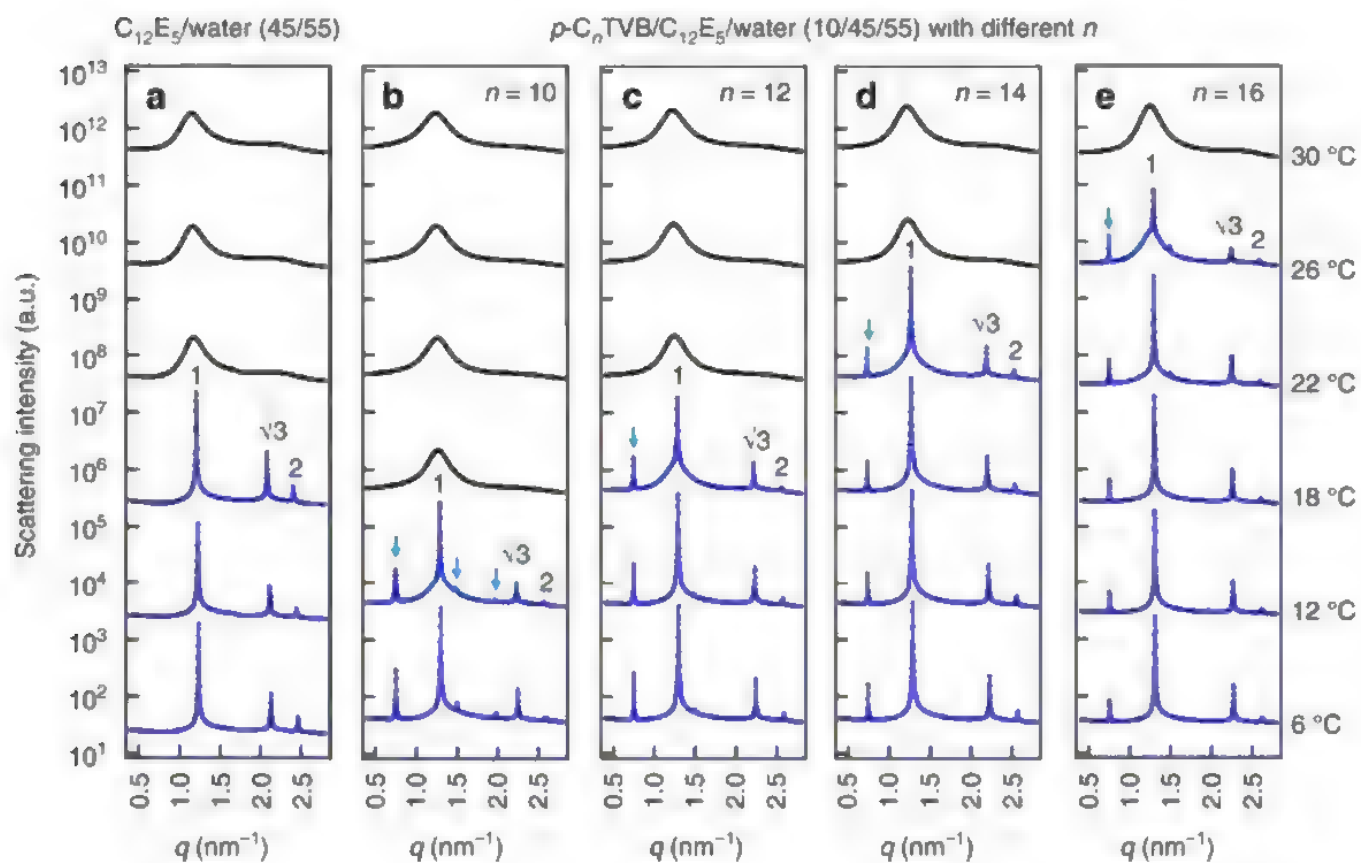
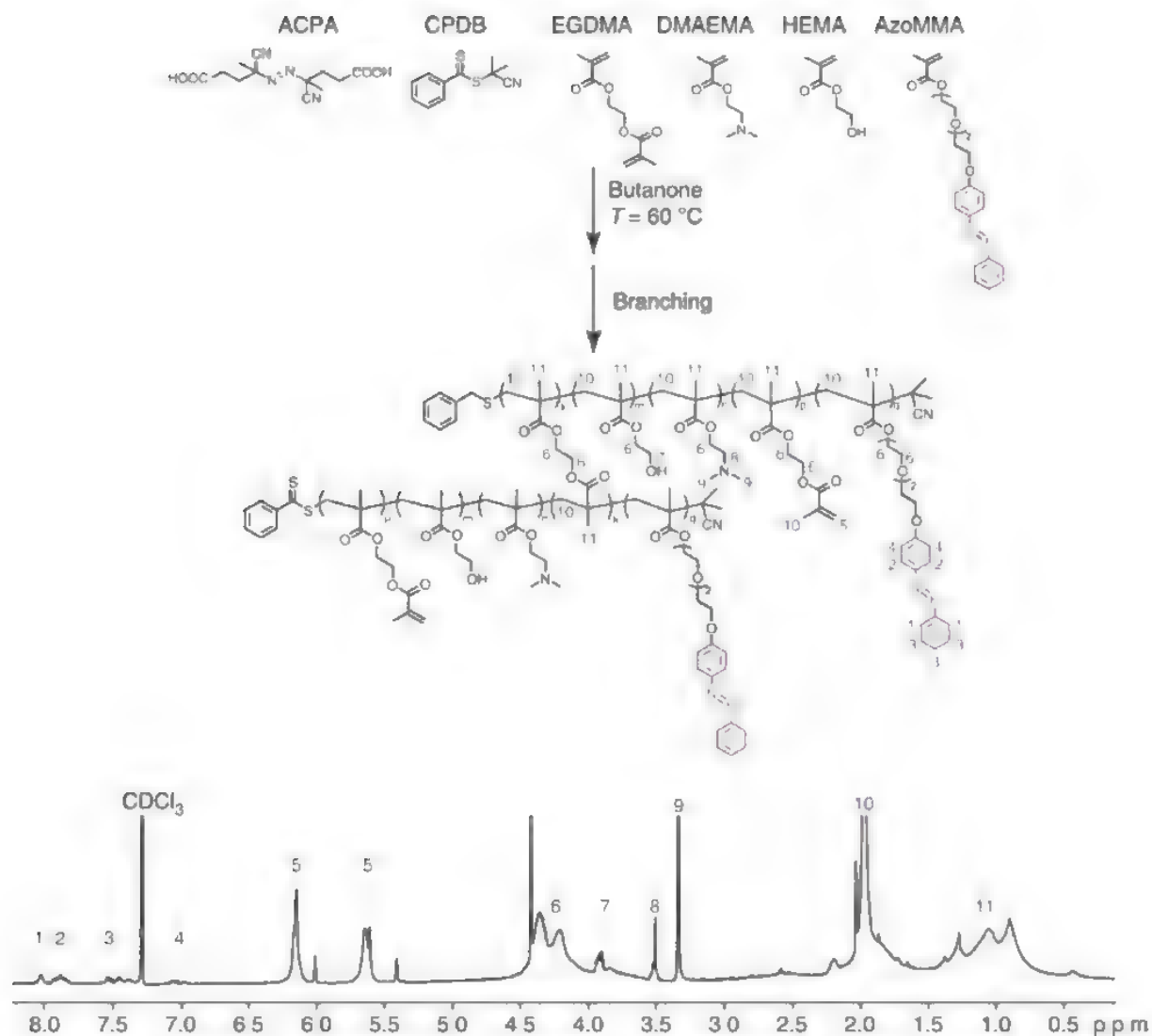




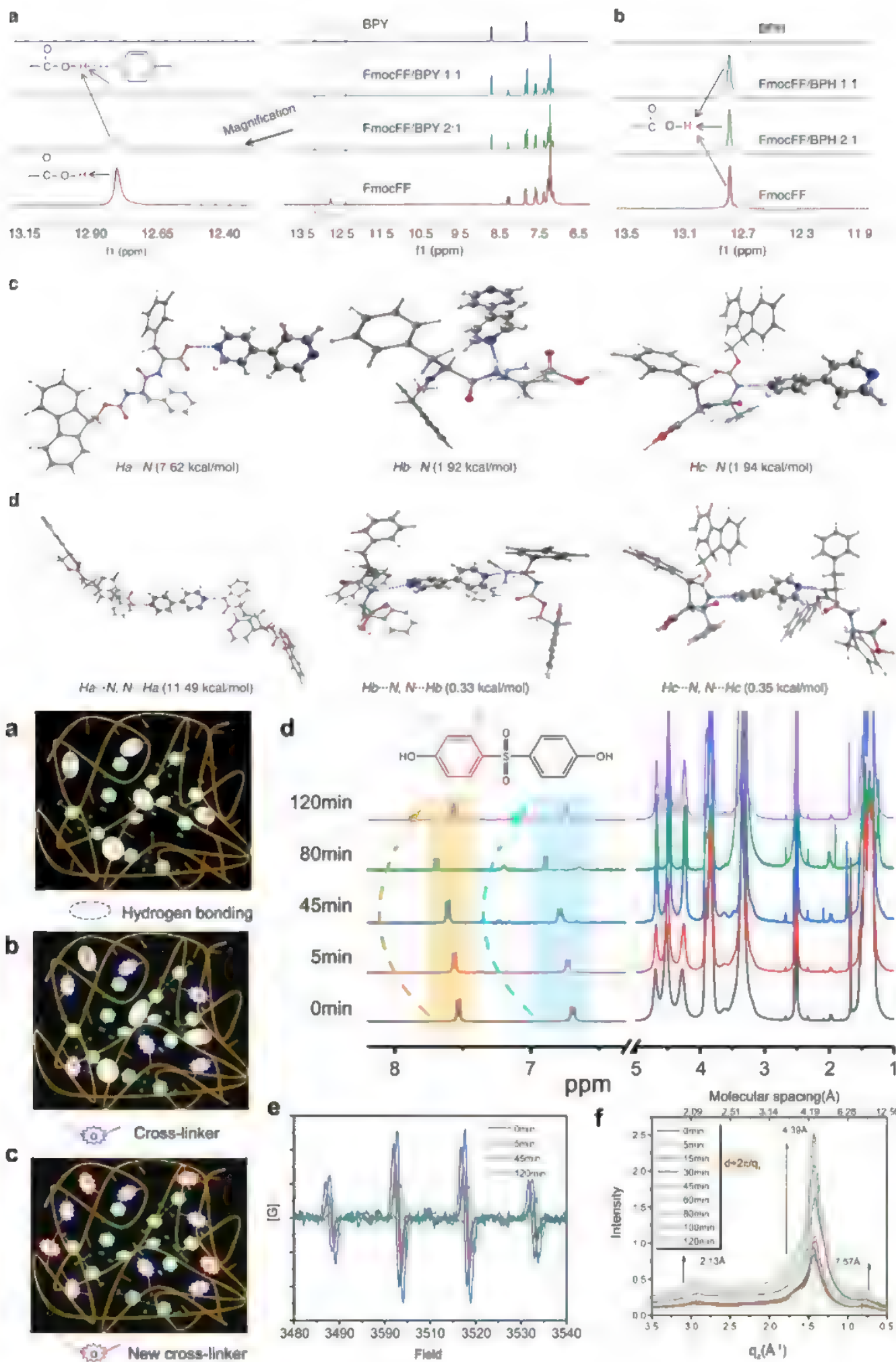


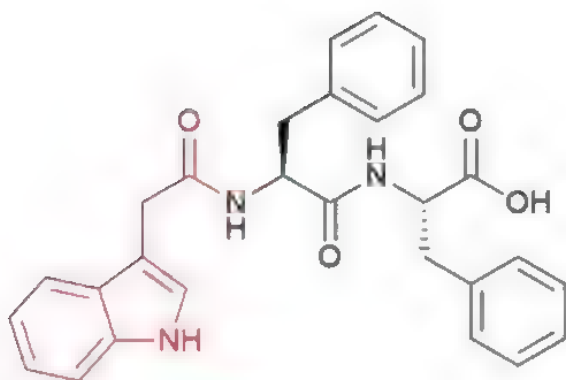




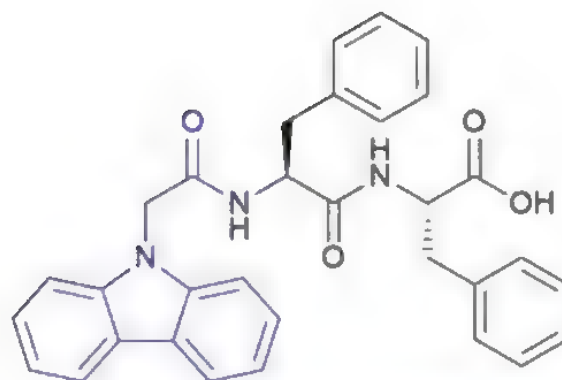






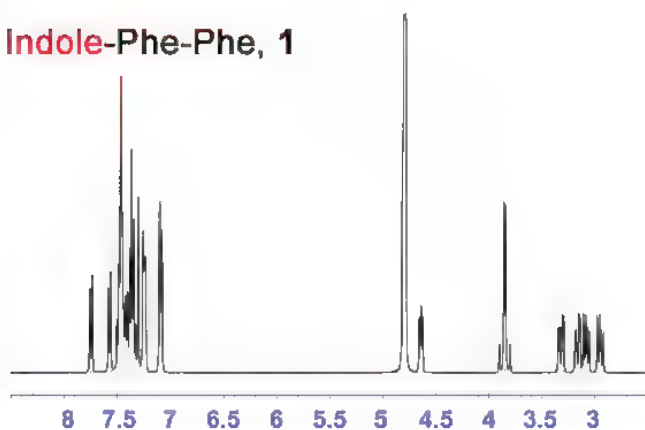


**Indole-Phe-Phe, 1**

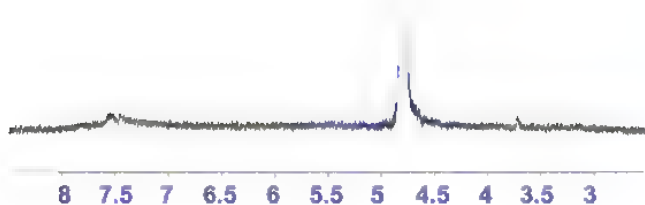


**Carbazole-Phe-Phe, 2**

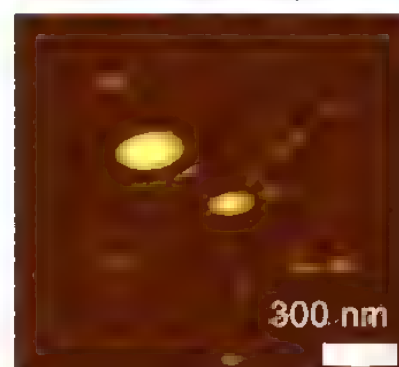
**a)** Indole-Phe-Phe, 1



**b)** Carbazole-Phe-Phe, 2



**c)** Indole-Phe-Phe, 1



**d)** Carbazole-Phe-Phe, 2

